Department of Veterans Affairs

Automated Surgical Risk Calculator

Testing Manual



June 2015

Version 1.8

Revision History

| Date | Version | Description | Author |
| --- | --- | --- | --- |
| 11/18/2014 | 1.0 | Initial Draft | B. Frey |
| 11/20/2014 | 1.1 | Updated to include the following User Stories:  Display User Name from VistA  Select Surgical Specialty  Patient Age Manual Entry  Patient Gender Manual Entry  Select Surgical Procedure  Procedure list has Descriptions, CPT codes, and RVUs | B. Frey |
| 11/21/2014 | 1.2 | Technical Writer Review | S. Vetzel |
| 12/17/2014 | 1.3 | Updated to include the following User Stories:  Field Display Grouping  Patient BMI Manual Entry  Patient DNR Manual Entry  Checkbox Custom Variables  Change Checkbox Custom Variable Text  Radio Button Custom Variables | B. Frey |
| 12/17/2014 | 1.4 | Technical Writer Review | S. Vetzel |
| 01/05/2015 | 1.4.1 | Updated  Test Case 3 – added fractional test and clarified test case navigation steps.  Test Case 5 – added steps needed to enter all required fields and clarified navigation steps.  Test Case 7 – added note to Acceptance Criteria section that states that as new groups (e.g., Medications) are added their grouping will be tested as part of the test case associated with the new User Story. | B. Frey |
| 01/14/2015 | 1.4.2 | Updated to include the following User Stories:  ASRC-120: Alkaline Phosphatase Lab Result Manual WNL/Abnormal  ASRC-84: Alkaline Phosphatase Lab Result Manual Entry Numerical  ASRC-132: Alkaline Phosphatase Lab Result Translation | B. Frey |
| 01/19/2015 | 1.4.3 | Updated to include the following User Stories:  ASRC-119: BUN Lab Result Manual WNL/Abnormal  ASRC-83: BUN Lab Result Manual Entry Numerical  ASRC-131: BUN Lab Result Translation  ASRC-27: Patient Weight 6 Months Prior Manual Entry | B. Frey |
| 01/23/2015 | 1.5 | Updated to include the following User Stories:  ASRC-18: Serum Albumin Lab Result Manual WNL/Abnormal  ASRC-17: Serum Albumin Lab Result Manual Entry Numerical  ASRC-15: B Serum Albumin Lab Result Translation  ASRC-9: Search for procedure by CPT Code  ASRC-165: Display Patient BMI Categorization  Removed ASRC-27: Patient Weight 6 Months Prior as the User Story is being re-worked based on new input from customer. | B. Frey |
| 01/26/2015 | 1.5.1 | Technical Writer Review | S. Vetzel |
| 02/05/2015 | 1.5.2 | Updated to include the following User Stories:  ASRC-114: WBC Lab Result Manual WNL/Abnormal  ASRC-78: WBC Lab Result Manual Entry Numerical  ASRC-126: WBC Lab Result Translation | B. Frey |
| 02/23/2015 | 1.5.3 | Updated to include the following User Stories:  ASRC-1: Launch from CPRS Tools Menu  ASRC-2: Share Patient Context with CPRS  ASRC-43: FY2013 Thoracic Risk Model  ASRC-27: Patient Weight 6 Months Prior Manual Entry | B. Frey |
| 02/24/2015 | 1.5.4 | Technical Writer Review | S. Vetzel |
| 02/25/2015 | 1.5.5 | Added ASRC numbers to Test Case names. | B. Frey |
| 03/04/2015 | 1.5.6 | Updated to include the following User Stories:  ASRC-197: Update Age Ranges  ASRC-243: BMI Validation | B. Frey |
| 03/23/2015 | 1.5.7 | Updated to include the following User Stories:  ASRC-113: Creatinine Lab Result Manual WNL/Abnormal  ASRC-77: Creatinine Lab Result Manual Entry Numerical  ASRC-102: Creatinine Lab Result Translation  ASRC-123: Bilirubin Lab Result Manual WNL/Abnormal  ASRC-87: Bilirubin Lab Result Manual Entry Numerical  ASRC-135: Bilirubin Lab Result Translation  ASRC-115: Platelets Lab Result Manual WNL/Abnormal  ASRC-79: Platelets Lab Result Manual Entry Numerical  ASRC-127: Platelets Lab Result Translation  ASRC-82: INR Lab Result Manual Entry Numerical  ASRC-19: Patient Age Automatic Retrieval  ASRC-92: Patient Gender Automatic Retrieval  ASRC-25: Patient Weight Automatic Retrieval  ASRC-93: Patient BMI Automatic Retrieval  ASRC-240: Change Text to “Other Surgical Specialty”  ASRC-26: Patient Weight 6 Months Prior Automatic Retrieval  ASRC-106: FY2013 General Surgery 30-Day Risk Model | S. Ambrose |
| 04/13/2015 | 1.5.8 | Updated to include the following User Stories:  ASRC-116: Hematocrit Lab Result Manual WNL/Abnormal  ASRC-80: Hematocrit Lab Result Manual Entry Numerical  ASRC-128: Hematocrit Lab Result Translation  ASRC-117: SGOT Lab Result Manual WNL/Abnormal  ASRC-81: SGOT Lab Result Manual Entry Numerical  ASRC-129: SGOT Lab Result Translation  ASRC-121: Serum Sodium Lab Result Manual WNL/Abnormal  ASRC-85: Serum Sodium Lab Result Manual Entry Numerical  ASRC-133: Serum Sodium Lab Result Translation  ASRC-124: PTT Lab Result Manual WNL/Abnormal  ASRC-88: PTT Lab Result Manual Entry Numerical  ASRC-136: PTT Lab Result Translation  ASRC-107: FY2013 Neurosurgery 30-Day Risk Model  ASRC-108: FY2013 Orthopedic 30-Day Risk Model  ASRC-210: Re-run Calculation with Modified Inputs  ASRC-49: Sign the Risk Calculation  ASRC-50: Save Result as TIU Note | S. Ambrose |
| 04/21/2015 | 1.5.9 | Technical Writer Review | B. Frey |
| 05/18/2015 | 1.6 | Updated to include the following User Stories:  ASRC-109: FY2013 Urology 30-Day Risk Model  ASRC-110: FY2013 Vascular 30-Day Risk Model  ASRC-112: FY2013 Other Surgical Specialty 30-Day Risk Model  ASRC-111: FY2013 Cardiac CABG Only 30-Day Risk Model  ASRC-238: FY2013 Cardiac Valve/Other 30-Day Risk Model  ASRC-266: Put the Procedure Value at the top of the results screen list  ASRC-265: Put the Procedure Value at the top of the TIU Note  ASRC-264: Risk outcomes at the top of the TIU Note  ASRC-269: BMI Upper Range  ASRC-199: Authenticate Administrative Users  ASRC-141: Modify Checkbox Custom Variables  ASRC-51: Save Result as discrete VistA data | S. Ambrose  B. Frey |
| 05/19/2015 | 1.7 | Technical Edit | S. Ambrose |
| 06/09/2015 | 1.8 | Updated to include the following User Stories:  ASRC-284: Cancelling signature preserves input  ASRC-224: Add Checkbox Custom Variables  ASRC-142: Modify Radio Button Custom Variables  ASRC-225: Add Radio Button Custom Variables  ASRC-229: Modify Discrete Numerical Variables  ASRC-230: Add Discrete Numerical Variables  ASRC-236: Warn the user if overwriting an in-progress calculation  ASRC-56: VistA Request for Surgery Display  ASRC-8: Search for procedure by description  ASRC-14: Albumin Lab Result Automatic Retrieval  ASRC-63: Creatinine Lab Result Automatic Retrieval  ASRC-64: WBC Lab Result Automatic Retrieval  ASRC-65: Platelets Lab Result Automatic Retrieval  ASRC-66: Hematocrit Lab Result Automatic Retrieval  ASRC-67: SGOT Lab Result Automatic Retrieval  ASRC-68: INR Lab Result Automatic Retrieval  ASRC-69: BUN Lab Result Automatic Retrieval  ASRC-70: Alkaline Phosphatase Lab Result Automatic Retrieval  ASRC-71: Na+ Lab Result Automatic Retrieval  ASRC-73: Bilirubin Lab Result Automatic Retrieval  ASRC-74: PTT Lab Result Automatic Retrieval | B. Frey  S. Ambrose |

**Table of Contents**

[1. Testing Manual Introduction 1](#_Toc422153100)

[2. Test Case (TC) #1 – ASRC-104: Display User Name from VistA 2](#_Toc422153101)

[3. TC #2 – ASRC-11: Select Surgical Specialty 3](#_Toc422153102)

[4. TC #3 – ASRC-20: Patient Age Manual Entry 4](#_Toc422153103)

[5. TC #4 – ASRC-22: Patient Gender Manual Entry 7](#_Toc422153104)

[6. TC #5 – ASRC-6: Select Surgical Procedure 8](#_Toc422153105)

[7. TC #6 – ASRC-7: Procedure list has Descriptions, CPT codes, and RVUs 10](#_Toc422153106)

[8. TC #7 – ASRC-55: Field Display Grouping 11](#_Toc422153107)

[9. TC #8 – ASRC-29: Patient Functional Status Entry 12](#_Toc422153108)

[10. TC #9 – ASRC-21: Patient BMI Manual Entry 14](#_Toc422153109)

[11. TC #10 – ASRC-38: Patient DNR Manual Entry 16](#_Toc422153110)

[12. TC #11 – ASRC-41: Checkbox Custom Variables Display and Modification 17](#_Toc422153111)

[13. TC #12 – ASRC-42: Radio Button Custom Variables Display and Modification 19](#_Toc422153112)

[14. TC #13 – ASRC-120: Alkaline Phosphatase Lab Result Manual WNL/Abnormal 22](#_Toc422153113)

[15. TC #14 – ASRC-84: Alkaline Phosphatase Lab Result Manual Entry Numerical 24](#_Toc422153114)

[16. TC #15 – ASRC-132: Alkaline Phosphatase Lab Result Translation 27](#_Toc422153115)

[17. TC #16 – ASRC-119: BUN Lab Result Manual WNL/Abnormal 29](#_Toc422153116)

[18. TC #17 – ASRC-83: BUN Lab Result Manual Entry Numerical 31](#_Toc422153117)

[19. TC #18 – ASRC-131: BUN Lab Result Translation 33](#_Toc422153118)

[20. TC #19 – ASRC-18: Serum Albumin Lab Result Manual WNL/Abnormal 34](#_Toc422153119)

[21. TC #20 – ASRC-17: Serum Albumin Lab Result Manual Entry Numerical 36](#_Toc422153120)

[22. TC #21 – ASRC-15: Serum Albumin Lab Result Translation 38](#_Toc422153121)

[23. TC #22 – ASRC-9: Search for Procedure by CPT Code 39](#_Toc422153122)

[24. TC #23 – ASRC-165: Display Patient BMI Categorization 41](#_Toc422153123)

[25. TC #24 – ASRC-114: WBC Lab Result Manual WNL/Abnormal 43](#_Toc422153124)

[26. TC #25 – ASRC-78: WBC Lab Result Manual Entry Numerical 45](#_Toc422153125)

[27. TC #26 – ASRC-126: WBC Lab Result Translation 47](#_Toc422153126)

[28. TC #27 – ASRC-1: Launch from CPRS Tools Menu 48](#_Toc422153127)

[29. TC #28 – ASRC-2: Share patient context with CPRS 49](#_Toc422153128)

[30. TC #29 – ASRC-27: Patient Weight 6 Months Prior Manual Entry 50](#_Toc422153129)

[31. TC #30 – ASRC-43: FY2013 Thoracic 30-Day Risk Model 55](#_Toc422153130)

[32. TC #31 – ASRC-113: Creatinine Lab Result Manual WNL/Abnormal 57](#_Toc422153131)

[33. TC #32 – ASRC-77: Creatinine Lab Result Manual Entry Numerical 60](#_Toc422153132)

[34. TC #33 – ASRC-102: Creatinine Lab Result Translation 62](#_Toc422153133)

[35. TC #34 – ASRC-123: Bilirubin Lab Result Manual WNL/Abnormal 65](#_Toc422153134)

[36. TC #35 – ASRC-87: Bilirubin Lab Result Manual Entry Numerical 66](#_Toc422153135)

[37. TC #36 – ASRC-135: Bilirubin Lab Result Translation 68](#_Toc422153136)

[38. TC #37 – ASRC-115: Platelets Lab Result Manual WNL/Abnormal 70](#_Toc422153137)

[39. TC #38 – ASRC-79: Platelets Lab Result Manual Entry Numerical 71](#_Toc422153138)

[40. TC #39 – ASRC-127: Platelets Lab Result Translation 74](#_Toc422153139)

[41. TC #40 – ASRC-82: INR Lab Result Manual Entry Numerical 75](#_Toc422153140)

[42. TC #41 – ASRC-19: Patient Age Automatic Retrieval 77](#_Toc422153141)

[43. TC #42 – ASRC-92: Patient Gender Automatic Retrieval 78](#_Toc422153142)

[44. TC #43 – ASRC-25: Patient Weight Automatic Retrieval 79](#_Toc422153143)

[45. TC #44 – ASRC-93: Patient BMI Automatic Retrieval 80](#_Toc422153144)

[46. TC #45 – ASRC-240: Change Text to “Other Surgical Specialty” 81](#_Toc422153145)

[47. TC #46 – ASRC-26: Patient Weight 6 Months Prior Automatic Retrieval 82](#_Toc422153146)

[48. TC #47 – ASRC-106: FY2013 General Surgery 30-Day Risk Model 82](#_Toc422153147)

[49. TC #48 – ASRC-116: Hematocrit Lab Result Manual WNL/Abnormal 85](#_Toc422153148)

[50. TC #49 – ASRC-80: Hematocrit Lab Result Manual Entry Numerical 86](#_Toc422153149)

[51. TC #50 – ASRC-128: Hematocrit Lab Result Translation 89](#_Toc422153150)

[52. TC #51 – ASRC-117: SGOT Lab Result Manual WNL/Abnormal 90](#_Toc422153151)

[53. TC #52 – ASRC-81: SGOT Lab Result Manual Entry Numerical 92](#_Toc422153152)

[54. TC #53 – ASRC-129: SGOT Lab Result Translation 94](#_Toc422153153)

[55. TC #54 – ASRC-121: Serum Sodium Lab Result Manual WNL/Abnormal 95](#_Toc422153154)

[56. TC #55 – ASRC-85: Serum Sodium Lab Result Manual Entry Numerical 97](#_Toc422153155)

[57. TC #56 – ASRC-133: Serum Sodium Lab Result Translation 99](#_Toc422153156)

[58. TC #57 – ASRC-124: PTT Lab Result Manual WNL/Abnormal 101](#_Toc422153157)

[59. TC #58 – ASRC-88: PTT Lab Result Manual Entry Numerical 103](#_Toc422153158)

[60. TC #59 – ASRC-136: PTT Lab Result Translation 105](#_Toc422153159)

[61. TC #60 – ASRC-107: FY2013 Neurosurgery 30-Day Risk Model 106](#_Toc422153160)

[62. TC #61 – ASRC-108: FY2013 Orthopedic 30-Day Risk Model 109](#_Toc422153161)

[63. TC #62 – ASRC-210: Re-run Calculation with Modified Inputs 112](#_Toc422153162)

[64. TC #63 – ASRC-49: Sign the Risk Calculation 113](#_Toc422153163)

[65. TC #64 – ASRC-50: Save Result as TIU Note 115](#_Toc422153164)

[66. TC #65 – ASRC-109: FY2013 Urology 30-Day Risk Model 116](#_Toc422153165)

[67. TC #66 – ASRC-110: FY2013 Vascular 30-Day Risk Model 119](#_Toc422153166)

[68. TC #67 – ASRC-112: FY2013 Other Surgical Specialty 30-Day Risk Model 122](#_Toc422153167)

[69. TC #68 – ASRC-111: FY2013 Cardiac CABG 30-Day Risk Model 125](#_Toc422153168)

[70. TC #69 – ASRC-238: FY2013 Cardiac Valve/Other 30-Day Risk Model 127](#_Toc422153169)

[71. TC #70 – ASRC-266: Put the Procedure Value at the top of the results screen list 130](#_Toc422153170)

[72. TC #71 – ASRC-265: Put the Procedure Value at the top of the TIU Note 131](#_Toc422153171)

[73. TC #72 – ASRC-264: Risk Outcomes at the top of the TIU Note 132](#_Toc422153172)

[74. TC #73 – ASRC-269: BMI Upper Range 133](#_Toc422153173)

[75. TC #74 – ASRC-199: Authenticate Administrative Users 134](#_Toc422153174)

[76. TC #75 – ASRC-141: Modify Checkbox Custom Variables 135](#_Toc422153175)

[77. TC #76 – ASRC-51: Save Result as Discrete VistA Data 138](#_Toc422153176)

[78. TC #77 – ASRC-224: Add Checkbox Custom Variables 140](#_Toc422153177)

[79. TC #78 – ASRC-142: Modify Radio Button Custom Variables 142](#_Toc422153178)

[80. TC #79 – ASRC-225: Add Radio Button Custom Variables 144](#_Toc422153179)

[81. TC #80 – ASRC-229: Modify Discrete Numerical Variables 147](#_Toc422153180)

[82. TC #81 – ASRC-230: Add Discrete Numerical Variables 149](#_Toc422153181)

[83. TC #82 – ASRC-236: Warn the user if overwriting an in-progress calculation 152](#_Toc422153182)

[84. TC #83 – ASRC-56: VistA Request for Surgery Display 153](#_Toc422153183)

[85. TC #84 – ASRC-8: Search for procedure by description 156](#_Toc422153184)

[86. TC #85 – ASRC-14 (Albumin), ASRC-63 (Creatinine), ASRC-64 (WBC), ASRC-65 (Platelets), ASRC-66 (Hematocrit), ASRC-67 (SGOT), ASRC-68 (INR), ASRC-69 (BUN), ASRC-70 (Alkaline Phosphatase): Lab Automatic Retrieval 158](#_Toc422153185)

# Testing Manual Introduction

Project Name: Automated Surgical Risk Calculator (ASRC)

Test Plan Type: Functional

Tester Name: Bill Frey

Environment: VA Future Technology Lab

**Purpose:**

The ARSC testing manual will support the development of an “Automated Surgical Risk Calculator Tool” that can be used at the time the patient is considered for surgical referral by a primary care provider and at the time a surgeon is requesting a surgery. This Tool will support clinical decision-making regarding perioperative risk (includes preoperative, intraoperative, and postoperative). Providers will verify patient-specific data that is automatically pulled from available data sources, enter remaining fields, and be provided with a real-time individual risk calculation of perioperative surgical mortality based on historic Veterans Affairs Surgical Quality Improvement Program (VASQIP) data and current VASQIP risk-adjusted models that are specialty-specific. The data entered and the calculated results will be available for viewing in the Computerized Patient Record System (CPRS) as a progress note. The data will also transfer and store as discrete fields in Veterans Health Systems and Technology Architecture (VistA) and a Structured Query Language (SQL) database for use by the National Surgery Office (NSO).

The purpose of this document is to provide clear and easy to follow test scripts with associated screen shots to facilitate thorough testing by the Hewlett-Packard Enterprise Services (HPES) team and subsequent use for User Acceptance Testing (UAT). The Testing Manual will reflect updates as new functionality is developed and is available for testing.

**User must have access to the ASRC Future Technology Lab environment and to the following applications:**

VistA/CPRS**:** Access to these legacy Veterans Affairs (VA) Electronic Health Record (EHR) applications is required to validate patient information and to access the ASRC Application (from CPRS).

[**ASRC Application**](http://54.235.83.7/srcalc/newCalc)**:** New tool being developed by the ASRC providing the calculator user interface and functions.

**Conventions:**

* In the following test cases, “**Step**” indicates an instructional step in a procedure not specifically related to testing a requirement. There is no need to indicate a Pass or Fail for Steps (these cells have been greyed out).
* “***VP***” indicates a step that verifies a procedure with expected results and actual results, related directly to testing a requirement. Enter (P)ass or (F)ail for each VP.

# Test Case (TC) #1 – ASRC-104: Display User Name from VistA

**User Story:**  ASRC-104: Display User Name from VistA

**Description:** As a VA clinical user, I want the tool to display my user name from VistA, so that it is obvious what user is logged in.

*Acceptance Criteria:*

* Tool will log valid VistA users into the system
* Tool will display logged in user’s names

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #1 – Display User Name from VistA*** | | | | |
|  | **Step** | Access the ASRC Application. | The ASRC application displays |  |
|  | ***VP*** | Attempt to Login to the ASRC Application as a valid user - Radiologist (valid User Number 11716 entered in Username) | Verify that User: RADIOLOGIST,ONE displays. |  |
|  | ***VP*** | Attempt to login to the ARSC Application as an invalid user (enter invalid User Number 2) | Verify that appropriate login error message displays. |  |
|  |  | End of Test Case |  |  |

# TC #2 – ASRC-11: Select Surgical Specialty

**User Story:**  ASRC-11: Select Surgical Specialty

**Description:** As a provider, I want to select my surgical specialty, So that the tool performs the specialty-specific calculation.

*Acceptance Criteria:*

* Selected Surgical Specialty screen is displayed when continue is clicked.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab (FTL) & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #2 –* Select Surgical Specialty** | | | | |
|  | **Step** | Login to the ASRC Application. | The ASRC application is displayed and login was successful |  |
|  | **VP** | Select the General Surgery Specialty and click continue | Verify that the General Surgery specialty screen is displayed |  |
|  | ***Step*** | Click the browser back button to navigate until the Select Surgical Specialty screen is displayed | Surgical Specialty selection screen is displayed |  |
|  | ***Step/VP*** | Repeat step 2 selecting Neurosurgery specialty | Verify same results |  |
|  | **Step/VP** | Repeat step 3 then step 2 selecting Orthopedic specialty | Verify same results |  |
|  | **Step/VP** | Repeat step 3 then step 2 selecting Other Non-Cardiac Specialty | Verify same results |  |
|  | **Step/VP** | Repeat step 3 then step 2 selecting Thoracic specialty | Verify same results |  |
|  | **Step/VP** | Repeat step 3 then steps 2-3 selecting Urology specialty | Verify same results |  |
|  | **Step/VP** | Repeat step 3 then steps 2-3 selecting Vascular specialty | Verify same results |  |
|  |  | End of Test Case |  |  |

# TC #3 – ASRC-20: Patient Age Manual Entry

**User Story:**  ASRC-20: Patient Age Manual Entry

**Description:** As a provider, I want the tool to allow manual data entry of the patient's current age, So that I can still perform the calculation if it could not be automatically retrieved or if I have more information that is current.

*Acceptance Criteria:*

* Tool allows entry of age greater than or equal to 0
* Tool rejects entry less than 0 with a user-visible error message
* Tool rejects entry greater than 999 with a user-visible error message
* Tool rejects a blank Age entry with a user-visible error message
* Tool display entered age on calculation result page
* Each model that has the Manual Entry of Age (all non-cardiac) meets the previous criteria

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #3 – Patient Age Manual Entry*** | | | | |
|  | **Step** | Access the ASRC Application.  Login to the ASRC Application as a Radiologist (DUZ 11716) test user | The ASRC application displays.  Test user (Radiologist) is logged in. |  |
|  | **Step** | Select General Surgery Specialty and click the continue button. | The General Specialty shows as selected when clicked.  The General Surgery specialty screen displays after clicking continue |  |
|  | **VP** | * In the Age box enter -1 * Enter all other required fields for the specialty * Run calculation | Verify that an appropriate error message is displayed |  |
|  | **VP** | * In the Age box enter 0 * Enter all other required fields for the specialty * Run calculation | Verify that the value is accepted. |  |
|  | **VP** |  | Verify that the entered Age (0) is displayed |  |
|  | **Step** | * Click “Start New Calculation” * Select the specialty again (e.g., if testing General Surgery reselect it and Continue to that specialty screen) |  |  |
|  | **VP** | * In the Age box enter 1000 * Enter all other required fields for the specialty * Run calculation | Verify that an appropriate error message is displayed to the user (that the value must be <= 999) |  |
|  | **VP** | * In the Age box enter 999 * Enter all other required fields for the specialty * Run calculation | Verify that the value is accepted |  |
|  | **VP** |  | Verify that the entered Age (999) is displayed |  |
|  | **Step** | * Click “Start New Calculation” * Select the specialty again (e.g., if testing General Surgery reselect it and Continue to that specialty screen) |  |  |
|  | **VP** | * In the Age box enter value 18.1 (non-integer containing a fractional value) * Enter all other required fields for the specialty * Run calculation | Verify that the entered Age (18.1) is displayed |  |
|  | **Step** | * Click “Start New Calculation” * Select the specialty again (e.g., if testing General Surgery reselect it and Continue to that specialty screen) |  |  |
|  | **VP** | In the Age box enter “One” and run calculation.  Enter all other required fields for the specialty. | Verify that an appropriate error message is displayed |  |
|  | **VP** | Without entering an Age run the calculation.  Enter all other required fields for the specialty. | Verify that an appropriate error message is displayed |  |
|  | **Step** | Navigate back to the surgical specialty screen | The Surgical Specialty screen is displayed |  |
|  | **Step/VP** | Repeat steps 2-11 selecting Neurosurgery specialty. | Verify same results |  |
|  | **Step/VP** | Repeat step 12 then 2 -11 selecting Orthopedic specialty | Verify same results |  |
|  | **Step/VP** | Repeat step 12 then 2 -11 selecting Other Non-Cardiac Specialty | Verify same results |  |
|  | **Step/VP** | Repeat step 12 then 2 -11 selecting Thoracic specialty | Verify same results |  |
|  | **Step/VP** | Repeat step 12 then 2 -11 selecting Urology specialty | Verify same results |  |
|  | **Step/VP** | Repeat step 12 then 2 -11 selecting Vascular specialty | Verify same results |  |
|  |  | End of Test Case |  |  |

# TC #4 – ASRC-22: Patient Gender Manual Entry

**User Story:**  ASRC-22: Patient Gender Manual Entry

**Description:** As a provider, I want the tool to allow manual data entry of the patient's gender, So that I can still perform the calculation if it could not be automatically retrieved or if I have more information that is current.

*Acceptance Criteria:*

* Tool displays entered gender on calculation result page.
* Tool displays appropriate error message if gender is not selected prior to running the calculation
* Tool changes the Variables section label to “Calculation Inputs” when the calculation is executed.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #4 – Patient Gender Manual Entry*** | | | | |
|  | **Step** | Login to the ASRC Application. | The ASRC application displays and login is successful. |  |
|  | **Step** | Select Cardiac Surgical Specialty and click continue | The Cardiac screen is displayed |  |
|  | ***VP*** |  | Verify that Gender label and Male Female radio buttons are displayed |  |
|  | ***VP*** | Select Male and run calculation | Verify that the section label changes to Calculation Inputs and that Gender Male is displayed |  |
|  | **Step** | * Click “Start New Calculation” * Select the Cardiac specialty again | The Cardiac screen is displayed |  |
|  | ***VP*** | Select Female and run calculation | Verify that the section label changes to Calculation Inputs and that Gender Female is displayed |  |
|  | ***VP*** | Run calculation without selecting either Male or Female | Verify that an appropriate error message is displayed |  |
|  |  | End of Test Case |  |  |

# TC #5 – ASRC-6: Select Surgical Procedure

**User Story:**  ASRC-6: Select Surgical Procedure

**Description:** As a provider, I want to select the surgical procedure, So that the tool performs the procedure-specific calculation.

Acceptance Criteria:

* Tool displays the shortened procedure description on the variable entry page.
* Tool displays the full procedure on the calculation result page.
* Tool displays appropriate error messages if a surgical procedure is not selected
* Tool meets previous criteria for all non-cardiac specialties

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #5 – Select Surgical Procedure*** | | | | |
|  | **Step** | Login to the ASRC Application. | The ASRC application displays and login was successful |  |
|  | **Step** | Select the General Surgery Specialty and click continue | The selected specialty screen is displayed |  |
|  | **Step** | Click “Select” for procedure | The Procedure list is displayed |  |
|  | **VP** | Select the first procedure code on the list | Verify that the short form of the procedure description is displayed as a Variable |  |
|  | **Step** | Enter all other required fields for the specialty |  |  |
|  | **VP** | Run calculation | Verify that the long form of the procedure description is displayed |  |
|  | **Step** | * Click “Start New Calculation” * Select the specialty again (e.g., if testing General Surgery reselect it and Continue to that specialty screen) |  |  |
|  | **VP** | Run calculation without selecting a procedure | Verify that an appropriate error message is displayed |  |
|  | **VP** | Repeat steps 2-8 selecting the following specialties one at a time:   * Neurosurgery * Orthopedic * Other Non-cardiac * Thoracic * Urology * Vascular | Verify same results |  |
|  |  | End of Test Case |  |  |

# TC #6 – ASRC-7: Procedure list has Descriptions, CPT codes, and RVUs

**User Story:**  ASRC-7: Procedure list has Descriptions, CPT codes, and RVUs

**Description:** As a provider who is selecting a procedure, I want to see the procedure's CPT code, long description, and RVU, So that I know exactly what procedure I am selecting.

*Acceptance Criteria:*

* Tool displays for each procedure: CPT code, long description, and RVU.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #6 –* Procedure list has Descriptions, CPT codes, and RVUs** | | | | | |
|  | **Step** | Login to the ASRC Application. | The ASRC application displays and login was successful |  |
|  | **Step** | Select the General Surgery Specialty and click continue | The selected specialty screen is displayed |  |
|  | **VP** | Click “Select” for procedure | Verify that each procedure has a CPT code, long description, and RVU. |  |
|  | ***Step*** | Click the browser back button to navigate until the Select Surgical Specialty screen is displayed | Surgical Specialty selection screen is displayed |  |
|  | **VP** | Repeat steps 2-5 selecting the following specialties one at a time:   * Neurosurgery * Orthopedic * Other Non-cardiac * Thoracic * Urology * Vascular | Verify same results |  |
|  |  | End of Test Case |  |  |

# TC #7 – ASRC-55: Field Display Grouping

**User Story:**  ASRC-55: Field Display Grouping

**Description:** As a provider, I want the input fields grouped together (e.g., Demographics, Medications, etc.),

So that the variable entry page is intuitive.

*Acceptance Criteria:*

* The Field Display Grouping follows,

Table 1 - Field Grouping Categories

|  |
| --- |
| CPT Coded Procedure Planned, |
| Surgical Specialty, |
| Demographics, |
| BMI, |
| Medications, |
| Laboratory Values, |
| Clinical Conditions or Diseases specified in the coefficient data source. Clinical Conditions or Diseases shall be subdivided into |
| * + “Recent” and |
| * + “History of” categories. |

NOTE: Field Groupings will be incrementally verified as new field groups are added (e.g., Medications) and will be included as part of the related test case associated with the new User Story being implemented.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #7 –* Field Display Grouping** | | | | |
|  | **Step** | Login to the ASRC Application. | The ASRC application displays and login was successful |  |
|  | **Step** | Select Cardiac and click Continue | The Cardiac screen displays |  |
|  | **VP** | Examine the Cardiac Screen | Verify available field display groupings are within the groupings listed in Table 1 in Case 7’s Acceptance Criteria. |  |
|  | **VP** | Repeat steps 2-3 selecting the following specialties one at a time:   * General Surgery * Neurosurgery * Orthopedic * Other Non-cardiac * Thoracic * Urology * Vascular | Verify same results |  |
|  |  | End of Test Case |  |  |

# TC #8 – ASRC-29: Patient Functional Status Entry

**User Story:**  ASRC-29: Patient Functional Status Entry

**Description:** As a provider, I want to select the patient's functional status as "independent,” "partially dependent,” or "totally dependent", so that functional status is included in the risk calculation

*Acceptance Criteria:*

* Tool displays Functional Status and provides selectable statuses: Independent, Partially Dependent, and Totally Dependent
* Tool displays entered Functional Status on calculation result page.
* Tool displays appropriate error message if Functional Status is not selected prior to running the calculation
* Tool changes the Variables section label to “Calculation Inputs” when the calculation is executed.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** | |
| --- | --- | --- | --- | --- | --- | --- |
| ***Test Case #8 –* Patient Functional Status Entry** | | | | | | |
|  | **Step** | Login to the ASRC Application. | | The ASRC application is displays and login was successful |  | |
|  | **Step** | Select General Surgery and click continue | | The General Surgery screen displays |  | |
|  | **VP** | Examine the selected surgical specialty screen | | Verify that functional status displays along with the following selections   * Independent * Partially Dependent * Totally Dependent |  | |
|  | **Step** | Select a Procedure and enter a valid age | | Selected procedure and entered age are displayed |  | |
|  | **VP** | Select Independent and click Run Calculation | | Verify that screen is updated with the results (grouping is labelled Calculation Inputs) and that the selected functional status is displayed along with the other values. |  | |
|  | **Step** | Click the Browser back button | | The variable entry screen displays for the selected specialty. |  | |
|  | **Step** | Select a Procedure and enter a valid age | | Selected procedure and entered age are displayed |  | |
|  | **VP** | Select Partially Dependent and click Run Calculation | | Verify that screen is updated with the results (grouping is labelled Calculation Inputs) and that the selected functional status is displayed along with the other values. |  | |
|  | **Step** | Click the Browser back button | | The variable entry screen displays for the selected specialty. |  | |
|  | **Step** | Select a Procedure and enter a valid age | | Selected procedure and entered age are displayed |  | |
|  | **VP** | Select Totally Dependent and click Run Calculation | | Verify that screen is updated with the results (grouping is labelled Calculation Inputs) and that the selected functional status is displayed along with the other values. |  | |
|  | **Step** | Navigate back to the Surgical Specialty Selection page | | Surgical Specialties are displayed |  | |
|  | **VP** | Repeat steps 2-12 selecting the following specialties one at a time:   * Neurosurgery * Orthopedic * Other Non-cardiac * Thoracic * Urology * Vascular | Verify same results | | |  |
|  |  | End of Test Case | |  |  | |

# TC #9 – ASRC-21: Patient BMI Manual Entry

**User Story:**  ASRC-21: Patient BMI Manual Entry

**Description:** As a provider, I want the tool to allow manual data entry of the patient's current Body Mass Index,

So that I can still perform the calculation if it could not be automatically retrieved or if I have more current information.

Acceptance Criteria:

* Tool displays BMI and a manual entry box for each specialty
* Tool displays BMI in the correct field grouping (IAW VA GFI FY2013 Coefficients)
* Manual entry are numerical (not radio button categorization).
* Tool will validate that BMI is greater than or equal to 0.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #9 –*** Patient BMI Manual Entry | | | | |
|  | **Step** | Login to the ASRC Application | The ASRC application is displayed and login was successful |  |
|  | **Step** | Select Cardiac Surgical Specialty and click Continue | The Cardiac screen is displayed |  |
|  | **VP** | Examine the selected Surgical Specialty screen | * Verify that BMI is displayed along with a manual entry box * Verify that BMI is displayed in the correct field grouping |  |
|  | **VP** | * Enter data in other required fields on the screen * Enter -1 in the BMI box * Click Run Calculation | Verify that an appropriate error message is displayed |  |
|  | **VP** | * Enter data in other required fields on the screen * Enter 0 in the BMI box * Click Run Calculation | Verify that the entered BMI is shown on the Calculation Results page |  |
|  | **VP** | * Enter data in other required fields on the screen * Enter 500 in the BMI box * Click Run Calculation | Verify that an appropriate error message is displayed |  |
|  | **VP** | * Enter data in other required fields on the screen * Enter 499 in the BMI box * Click Run Calculation | Verify that the entered BMI is shown on the Calculation Results page |  |
|  | **Step** | Repeat steps 2-7 selecting the following specialties one at a time:   * Neurosurgery * Orthopedic * Other Non-cardiac * Thoracic * Urology * Vascular | Verify same results |  |
|  |  | End of Test Case |  |  |

# TC #10 – ASRC-38: Patient DNR Manual Entry

**User Story:**  ASRC-38: Patient DNR Manual Entry

**Description:** As a provider, I want the tool to allow manual entry of Do Not Resuscitate status,

So that I can still perform the risk calculation if it could not be automatically retrieved or if I have more current information.

*Acceptance Criteria:*

* Tool displays DNR and a checkbox for each specialty
* Tool displays DNR in the correct field grouping (IAW VA GFI FY2013 Coefficients)
* Tool displays “Yes” on calculation results page when DNR is checked
* Tool displays “No” on calculation results page when DNR is not checked

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #10 –* Patient DNR Manual Entry** | | | | |
|  | **Step** | Login to the ASRC Application. | The ASRC application displays and login was successful |  |
|  | **Step** | Select the Cardiac surgical specialty and click continue | The Cardiac screen displays |  |
|  | **VP** | Examine the selected Surgical Specialty screen | * Verify that there DNR and a corresponding checkbox are displayed * Verify that DNR is displayed in the correct field grouping |  |
|  | **VP** | * Enter data in other required fields on the screen * Check the DNR box * Click Run Calculation | Verify on the Calculations Results screen that DNR is displayed as “Yes” |  |
|  | **VP** | Repeat steps 2-4 selecting the following specialties one at a time:   * General Surgery * Neurosurgery * Orthopedic * Other Non-cardiac * Thoracic * Urology * Vascular | Verify same results |  |
|  |  | End of Test Case |  |  |

# TC #11 – ASRC-41: Checkbox Custom Variables Display and Modification

**User Story(s):**  ASRC-41: Checkbox Custom Variables | ASRC-154: Change Checkbox Custom Variable Text

**Description –** As a provider, I want the tool to support specialty-specific checkbox variables, so that I can intuitively input specialty-specific data.

*Acceptance Criteria:*

* Tool displays at least one functional custom checkbox variable.
* Tool displays entered checkbox value on calculation result page.
* Tool only displays the variable entry on the appropriate specialty pages.

**Description – ASRC-154:** As an ASRC Administrator, I want to modify the text of a checkbox custom variable, so that I can update the risk models without development effort.

*Acceptance Criteria – ASRC-154:*

* If a user has the Administrator role in ASRC the user can access the Administrative pages.
* An Administrative user can modify the displayed text for a checkbox variable.
* The variables names must be 80 characters or less

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application. Requires access to an ASRC Administrator account.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Use the User Number “1” to sign on as an administrator. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #11 –* Checkbox Custom Variables Display and Modification** | | | | |
|  | **Step** | Login to the ASRC Application as an Administrator | The ASRC application is displayed and login was successful |  |
|  | **Step** | Select the General Surgery surgical specialty and click continue | The General Surgery screen is displayed |  |
|  | **Step** | Examine the selected Surgical Specialty screen | The “Preop Pneumonia” checkbox is displayed |  |
|  | **VP** | Click on the Administration link (located on Welcome Screen) | Verify that the Model Administration page is displayed |  |
|  | **VP** | Click on the Edit link for “Preop Pneumonia” (A custom Checkbox variable) | Verify that the Display Name for “Preop Pneumonia” is displayed and can be selected for editing |  |
|  | **VP** | Change the Display Name to “Preop Pneumonia TEST” and click Save Changes | The Variable Definition List how displays “Preop Pneumonia TEST” |  |
|  | **VP** | Navigate back to the General Surgery page | Verify that “Preop Pneumonia TEST” is displayed as the custom variable name |  |
|  | **VP** | * Enter all required fields * check the Preop Pneumonia TEST checkbox * Click Run Calculation | Verify that the Preop Pneumonia TEST variable and the value “Yes” is displayed in the Calculation Inputs section of the Calculation results page |  |
|  | **VP** | * Return to the Administrators page and edit the checkbox variable again * Enter greater than 80 characters and save * Navigate back to the General Surgery screen | Verify that an appropriate error message is displayed for a variable name that is too long (must be 80 characters or less)  (cut and paste this 81 character string into the editable variable box)  012345678901234567890123456789012345678901234567890123456789012345678901234567891 |  |
|  | **VP** | * Return to the Administrators page and edit the checkbox variable again * Enter an 80 character name and save * Navigate back to the General Surgery screen | Verify that the variable name displays correctly.  (cut and paste this 80 character string into the editable variable box)  01234567890123456789012345678901234567890123456789012345678901234567890123456789 |  |
|  | **Step** | * Click on Run a new calculation * Click on the Administration Link * Edit the checkbox variable * Rename to original name – “Preop Pneumonia” * Navigate to the General Surgery page | The custom checkbox variable is displayed as “Preop Pneumonia” |  |
|  |  | End of Test Case |  |  |

# TC #12 – ASRC-42: Radio Button Custom Variables Display and Modification

**User Story(s):**  ASRC-42: Radio Button Custom Variables

**Description –** As a provider, I want the tool to support specialty-specific radio button variables, So that I can intuitively input specialty-specific data.

*Acceptance Criteria*

* Tool displays at least one functional radio button variable.
* Tool displays entered radio button value on calculation result page.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application. This test is dependent on ASRC-154: Change Checkbox Custom Variable Text (see Test Case 11) and assumes that it has been implemented.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #12 –* Radio Button Custom Variables Display and Modification** | | | | |
|  | **Step** | Login to the ASRC Application as an Administrator | The ASRC application displays and login was successful |  |
|  | **Step** | Select the General Surgery surgical specialty and click continue | The General Surgery screen is displayed |  |
|  | **Step** | Examine the selected Surgical Specialty screen | The “Functional Status” Radio Buttons are displayed |  |
|  | **Step** | Click on the Administration link  (located on Welcome Screen) | The Model Administration page displays. |  |
|  | **VP** | Click on the Edit link for “Functional Status” (A custom Radio Button variable) | Verify that the Display Name for “Functional Status” is displayed and can be selected for editing. |  |
|  | **VP** | Change the Display Name to “Functional Status TEST” and click Save Changes | The Variable Definition List how displays “Functional Status TEST” |  |
|  | **VP** | Navigate back to the General Surgery page | Verify that “Functional Status TEST” displays as the custom radio button variable name. |  |
|  | **VP** | * Enter all required fields * Click the “Functional Status TEST” Radio Button * Click Run Calculation | Verify that the “Functional Status TEST” variable displays in the Calculation Inputs section of the Calculation results page. |  |
|  | **VP** | * Return to the Administrators’ page and edit the radio button variable again * Enter greater than 80 characters and save * Navigate back to the General Surgery screen | Verify that an appropriate error message is displayed for a variable name that is too long (must be 80 characters or less)  (cut and paste this 81 character string into the editable variable box)  012345678901234567890123456789012345678901234567890123456789012345678901234567891 |  |
|  | **VP** | * Return to the Administrators page and edit the radio button variable again * Enter an 80 character name and save * Navigate back to the General Surgery screen | Verify that the variable name displays correctly.  (cut and paste this 80 character string into the editable variable box)  012345678901234567890123456789012345678901234567890123456789012345678901234567890 |  |
|  | **Step** | * Click on Run a new calculation * Click on the Administration Link * Edit the radio button variable * Rename to original name – “Functional Status” * Navigate to the General Surgery page | The custom checkbox variable is displayed as “Functional Status” |  |
|  |  | End of Test Case |  |  |

# TC #13 – ASRC-120: Alkaline Phosphatase Lab Result Manual WNL/Abnormal

**User Story(s):**  ASRC-120: Alkaline Phosphatase Lab Result Manual WNL/Abnormal

**Description –** As a provider, I want the tool to allow "Presumed Within Normal Limits (WNL)" or Presumed Too High (> 125mU/ml) for the Alkaline Phosphatase lab result, So that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* General, Thoracic, Urology, Vascular, and Other Non-Cardiac variable entry pages contains radio buttons to select Alkaline Phosphatase:
* WNL > 125 mU/ml is displayed for Presumed Too High
* Tool displays entry on the calculation results page
* Tool displays the variable in the Laboratory variable Field Group

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #13 –* Alkaline Phosphatase Lab Result Manual WNL/Abnormal** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page examine the available variables | Verify that each specialty contains radio buttons to select Alkaline Phosphatase  AND  The Alkaline Phosphatase variables are in the “Laboratory Values” field group. |  |
|  | **VP** | Select the General Surgery, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select the “Presumed WNL” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed WNL” is displayed for Alkaline Phosphatase for each specialty |  |
|  | **VP** | Select the General Surgery, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select the “Presumed >125mU/ml” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed >125mU/ml” is displayed for Alkaline Phosphatase for each specialty |  |
|  | **VP** | Select the General Surgery, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Don’t select any value for Alkaline Phosphatase * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Please select an option” is displayed for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #14 – ASRC-84: Alkaline Phosphatase Lab Result Manual Entry Numerical

**User Story(s):**  ASRC-84: Alkaline Phosphatase Lab Result Manual Entry Numerical

**Description –** As a provider, I want the tool to allow manual entry of the Alkaline Phosphatase lab result,   
So that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* The calculation result page should display the numerical value if available.
* The tool will accept input that is greater than or equal to 10 and less than or equal to 750.
* Tool displays the variable in the Laboratory variable Field Group

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #14 –* Alkaline Phosphatase Lab Result Manual Entry Numerical** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page examine the available variables | Verify that each specialty contains the Manual Numerical Entry box for Alkaline Phosphatase  AND  The Alkaline Phosphatase manual entry variable is in the “Laboratory Values” field group. |  |
|  | **VP** | Select the General Surgery, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select the Alkaline Phosphatase “Numerical” radio button (do not fill in a value) * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Please enter a valid number” is displayed |  |
|  | **VP** | Select the General Surgery, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select the Alkaline Phosphatase “Numerical” radio button * Fill in a value < 10 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be greater than or equal to 10” is displayed |  |
|  | **VP** | Select the General Surgery, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select the Alkaline Phosphatase “Numerical” radio button * Fill in a value > 750 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be less than or equal to 750” is displayed |  |
|  | **VP** | Select the General Surgery, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select the Alkaline Phosphatase “Numerical” radio button * Fill in a value >= 10 and <= 750 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the calculation runs successfully. |  |
|  |  | End of Test Case |  |  |

# TC #15 – ASRC-132: Alkaline Phosphatase Lab Result Translation

**User Story(s):**  ASRC-132: Alkaline Phosphatase Lab Result Manual Translation

**Description –** As a provider, I want the Alkaline Phosphatase lab result translated into normal (WNL - Within Normal Limits, or too high (> 125mU/ml) on the user interface, So that I can easily see the result's effect on the calculation.

*Acceptance Criteria:*

* <= 125 the tool displays "WNL (Actual Value:<value>)" or
* 125 the tool displays ">125mU/ml (Actual Value: <value>)

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #15 –* Alkaline Phosphatase Lab Result Translation** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Enter a number >=10 and < 125 in the Alkaline Phosphatase manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “WNL (Actual value:<entered value>) ” is displayed for Alkaline Phosphatase for each specialty |  |
|  | **VP** | Select the General Surgery, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Enter a number >125 and <=750 in the Alkaline Phosphatase manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “>25 mg/dl (Actual value:<entered value>) ” is displayed for Alkaline Phosphatase for each specialty |  |
|  | **VP** | Select the General Surgery, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select the “Presumed WNL” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed WNL” is displayed for Alkaline Phosphatase for each specialty |  |
|  | **VP** | Select the General Surgery, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select the “Presumed >125mU/ml” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed >125mU/ml” is displayed for Alkaline Phosphatase for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #16 – ASRC-119: BUN Lab Result Manual WNL/Abnormal

**User Story(s):**  ASRC-119: BUN Lab Result Manual WNL/Abnormal

**Description –** As a provider, I want the tool to allow "Presumed Within Normal Limits (WNL)" or Presumed Too High (> 25mg/dl) for the BUN lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* General Surgery, Thoracic, Neurosurgery, Urology, Vascular, and Other Non-Cardiac variable entry page contains radio buttons to select BUN:
  + WNL (presumed within Normal Limits)
  + > 25 mg/dl (Presumed too high)
* Tool displays entry on the calculation results page.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #16 –* BUN Lab Result Manual WNL/Abnormal** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Thoracic, Neurosurgery, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page examine the available variables | Verify that each specialty contains radio buttons to select BUN values  AND  The BUN variables are in the “Laboratory Values” field group |  |
|  | **VP** | Select the General Surgery, Thoracic, Neurosurgery, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select the “Presumed WNL” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed WNL” is displayed for BUN for each specialty |  |
|  | **VP** | Select the General Surgery, Thoracic, Neurosurgery, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select the “Presumed > 25 mg/dl” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed > 25 mg/dl” is displayed for BUN for each specialty |  |
|  | **VP** | Select the General Surgery, Thoracic, Neurosurgery, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Don’t select any value for BUN * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Please select an option” is displayed for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #17 – ASRC-83: BUN Lab Result Manual Entry Numerical

**User Story(s):**  ASRC-83: BUN Lab Result Manual Entry Numerical

**Description –** As a provider, I want the tool to allow manual entry of the BUN lab result,   
So that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* The calculation result page should display the numerical value if available.
* The tool will accept input that is greater than or equal to 2 and less than or equal to 90.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #17 –* BUN Lab Result Manual Entry Numerical** | | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Thoracic, Neurosurgery, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page examine the available variables | Verify that each specialty contains the Manual Numerical Entry box for BUN  AND  The BUN manual entry variable is in the “Laboratory Values” field group. |  |
|  | **VP** | Select the General Surgery, Thoracic, Neurosurgery, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select the BUN “Numerical” radio button (do not fill in a value) * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Please enter a valid number” is displayed |  |
|  | **VP** | Select the General Surgery, Thoracic, Neurosurgery, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select the BUN “Numerical” radio button * Fill in a value < 2 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be greater than or equal to 2” is displayed |  |
|  | **VP** | Select the General Surgery, Thoracic, Neurosurgery, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select the “Numerical” radio button * Fill in a value > 90 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be less than or equal to 90” is displayed |  |
|  | **VP** | Select the General Surgery, Thoracic, Neurosurgery, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select the BUN “Numerical” radio button * Fill in a value >= 2 and <= 90 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the calculation runs successfully. |  |
|  |  | End of Test Case |  |  |

# TC #18 – ASRC-131: BUN Lab Result Translation

**User Story(s):**  ASRC-131: BUN Lab Result Manual Translation

**Description –** I want the BUN lab result translated into Presumed WNL (Within Normal Limits), or Presumed >25mg/dl (too high) on the user interface, So that I can easily see the result's effect on the calculation.

*Acceptance Criteria:*

* <= 25 mg/dl the tool displays "WNL (Actual Value:<value>)" or
* > 25 mg/dl the tool displays “> 25 mg/dl (Actual Value: <value>)

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #18 –* BUN Lab Result Translation** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Thoracic, Neurosurgery, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Enter a number >=2 and <=25 in the BUN manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “WNL (Actual value:<entered value>) ” is displayed for BUN for each specialty |  |
|  | **VP** | Select the General Surgery, Thoracic, Neurosurgery, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Enter a number >25 and <=90 in the BUN manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “>25 mg/dl (Actual value:<entered value>) ” is displayed for BUN for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #19 – ASRC-18: Serum Albumin Lab Result Manual WNL/Abnormal

**User Story(s):**  ASRC-18: Serum Albumin Lab Result Manual WNL/Abnormal

**Description –** As a provider, I want the tool to allow "Presumed Within Normal Limits (WNL)" (> 3.5g/dl) or "Presumed Too Low" (<= 3.5g/dl) for the albumin lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, and Vascular variable entry page contains radio buttons to select Serum Albumin:
* “Presumed WNL” is available as a selection *as the leftmost entry*.
* “Presumed <= 3.5g/dl” is available as a selection
* Tool displays entry on the calculation results page.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #19 –* Serum Albumin Lab Result Manual WNL/Abnormal** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, and Vascular surgical specialties and on each specialty page examine the available variables | Verify that each specialty contains radio buttons to select Serum Albumin values  AND  The Serum Albumin variables are in the “Laboratory Values” field group |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, and Vascular surgical specialties and on each specialty page   * Select the “Presumed WNL” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed WNL” is displayed for Serum Albumin for each specialty  AND  Verify that “Presumed WNL” is displayed in the left most column |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, and Vascular surgical specialties and on each specialty page   * Select the “Presumed <= 3.5 g/dl” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed <= 3.5 mg/dl” is displayed for Serum Albumin for each specialty |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, and Vascular surgical specialties and on each specialty page   * Don’t select any value for Serum Albumin * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Please select an option” is displayed for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #20 – ASRC-17: Serum Albumin Lab Result Manual Entry Numerical

**User Story(s):**  ASRC-17: Serum Albumin Lab Result Manual Entry Numerical

**Description –** As a provider, I want the tool to allow manual entry of the Serum Albumin lab result,   
So that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* The calculation result page should display the numerical value if available.
* General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, and Vascular variable entry page contains a numerical input box for Serum Albumin:
* The tool will accept input that is greater than or equal to 1 and less than or equal to 6.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #20 –* Serum Albumin Lab Result Manual Entry Numerical** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, and Vascular surgical specialties and on each specialty page examine the available variables | Verify that each specialty contains the Manual Numerical Entry box for Serum Albumin  AND  The Serum Albumin manual entry variable is in the “Laboratory Values” field group. |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, and Vascular surgical specialties and on each specialty page   * Select the Serum Albumin “Numerical” radio button (do not fill in a value) * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Please enter a valid number” is displayed |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, and Vascular surgical specialties and on each specialty page   * Select the Serum Albumin “Numerical” radio button * Fill in a value < 1 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be greater than or equal to 1” is displayed |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, and Vascular surgical specialties and on each specialty page   * Select the Serum Albumin “Numerical” radio button * Fill in a value > 6 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be less than or equal to 6” is displayed |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, and Vascular surgical specialties and on each specialty page   * Select the Serum Albumin “Numerical” radio button * Fill in a value >= 1 and <= 6 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the calculation runs successfully. |  |
|  |  | End of Test Case |  |  |

# TC #21 – ASRC-15: Serum Albumin Lab Result Translation

**User Story(s):**  ASRC-15: Serum Albumin Lab Result Manual Translation

**Description –** As a provider, I want the Serum Albumin lab result translated into "WNL” for values > 3.5g/dl or "<= 3.5g/dl” for values <= 3.5g/dl on the user interface, so that I can easily see the result's effect on the calculation.

*Acceptance Criteria:*

* Values between 0 and 3.5g/dl are translated to “<= 3.5g/dl (Actual Value: <entered value>)”
* Values greater than 3.5g/dl and <= 6 are translated to “WNL (Actual Value: <entered value>)”

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #21 –* Serum Albumin Lab Result Translation** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, and Vascular surgical specialties and on each specialty page   * Enter a number >=1 and <=6 in the Serum Albumin manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “WNL (Actual value:<entered value>) ” is displayed for Serum Albumin for each specialty |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, and Vascular surgical specialties and on each specialty page   * Enter a number >0 and <=3.5 in the Serum Albumin manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “<= 3.5mg/dl (Actual value:<entered value>) ” is displayed for Serum Albumin for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #22 – ASRC-9: Search for Procedure by CPT Code

**User Story(s):**  ASRC-9: Search for Procedure by CPT code

**Description –** As a provider selecting a procedure, I want to search for the procedure by CPT code number, so that I do not have to manually look through 1000’s of procedures.

*Acceptance Criteria*

* The tool will provide a full CPT code match search
* The tool will provide a "starts with" search

This test assumes that Test Case #5 (Select Surgical Procedure) was already performed.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #22 –* Search for Procedure by CPT code** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery surgical specialty   * Click the “Select” procedure link * Enter “0005F” in the search box * Click “Select” to the right of that procedure | Verify that only the entered value “0005F” is displayed.  AND  Verify that it is selectable by clicking “Select” (the short form of the procedure is displayed) |  |
|  | **VP** | * Click the “Select” surgical procedure link again * Enter a “9” in the search box. | Verify that only CPT codes starting with the number “9” are shown  AND  Verify that all codes displayed are 5 digits in length |  |
|  | **VP** | * Click the “Select” surgical procedure link again * Enter a random number with two digits between 10 and 99 in the Search box. | Verify that only CPT codes starting with those two numbers are shown  (This will work for any combination of the first 4 digits of the CPT code as long as there are corresponding CPT codes to display. Try multiple combinations until you are satisfied it works.) |  |
|  | **VP** | * Click the “Select” surgical procedure link again * Enter 999 in the search box | Verify that no results are shown (there are not any CPT codes that start with 999). |  |
|  |  | End of Test Case |  |  |

# TC #23 – ASRC-165: Display Patient BMI Categorization

**User Story(s):**  ASRC-165: Display Patient BMI Categorization

**Description –** As a provider, I want to see the BMI categorization that the tool automatically derived,   
so that I can identify the way BMI was used in the calculation.

*Acceptance Criteria:*

* Tool displays “Patient BMI Categorization” on the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, Vascular, and Other Non-Cardiac variable entry pages.
* The following categories are selectable in the tool given that the lower bound is always exclusive:
  + - Presumed 0 to 18.5
    - Presumed 18.5 to 25
    - Presumed 25 to 30
    - Presumed >= 30
* Tool displays the selected category on the Results Page.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #23 –* Display Patient BMI Categorization** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page | Verify that Radio Buttons for the BMI Categorization are available on each selected specialty.   * Presumed 0 to 18.5 * Presumed 18.5 to 25 * Presumed 25 to 30 * Presumed >= 30 |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select “Presumed 0 to 18.5” * Select values for all other variables needed for the calculation * Run Calculation | Verify that BMI “Presumed 0 to 18.5” is displayed on the Calculation Results page |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select “Presumed 18.5 to 25” * Select values for all other variables needed for the calculation * Run Calculation | Verify that BMI “Presumed 18.5 to 25” is displayed on the Calculation Results page |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select “Presumed 25 to 30” * Select values for all other variables needed for the calculation * Run Calculation | Verify that BMI “Presumed 25 to 30” is displayed on the Calculation Results page |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Select “Presumed >= 30” * Select values for all other variables needed for the calculation * Run Calculation | Verify that BMI “Presumed >= 30” is displayed on the Calculation Results page |  |
|  |  | End of Test Case |  |  |

# TC #24 – ASRC-114: WBC Lab Result Manual WNL/Abnormal

**User Story(s):**  ASRC-114: WBC Lab Result Manual WNL/Abnormal

**Description –** As a provider, I want the tool to allow "Presumed WNL" (< 11.0x1000mm^3) or "Presumed > 11.0x1000/mm^3" for the WBC lab result, So that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* Neurosurgery, Orthopedics, Thoracic, Urology, Vascular, and All Other Non-Cardiac variable entry pages contains radio buttons to select White Blood Count:
* "Presumed WNL" is available as a selection
* "Presumed > 11.0x1000/mm^3" is available as a selection
* Tool displays entry on the calculation results page.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #24 –* WBC Lab Result Manual WNL/Abnormal** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Neurosurgery, Orthopedics, Thoracic, Urology, Vascular, and All Other Non-Cardiac surgical specialties and on each specialty page examine the available variables | Verify that each specialty contains radio buttons to select WBC values  AND  The WBC variables are in the “Laboratory Values” field group |  |
|  | **VP** | Select the Neurosurgery, Orthopedics, Thoracic, Urology, Vascular, and All Other Non-Cardiac surgical specialties and on each specialty page   * Select the WBC “Presumed WNL” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed WNL” is displayed for WBC for each specialty |  |
|  | **VP** | Select the Neurosurgery, Orthopedics, Thoracic, Urology, Vascular, and All Other Non-Cardiac surgical specialties and on each specialty page   * Select the WBC “Presumed > 11.0x1000/mm^3” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed > 11.0x1000/mm^3” is displayed for WBC for each specialty |  |
|  | **VP** | Select the Neurosurgery, Orthopedics, Thoracic, Urology, Vascular, and All Other Non-Cardiac surgical specialties and on each specialty page   * Don’t select any value for WBC * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Please select an option” is displayed for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #25 – ASRC-78: WBC Lab Result Manual Entry Numerical

**User Story(s):**  ASRC-78: WBC Lab Result Manual Entry Numerical

**Description –** As a provider, I want the tool to allow manual entry of the WBC lab result,   
So that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* The calculation result page should display the numerical value if available.
* The Range validation is >= 2 and <=50

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #25 –* WBC Lab Result Manual Entry Numerical** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Neurosurgery, Orthopedics, Thoracic, Urology, Vascular, and All Other Non-Cardiac surgical specialties and on each specialty page examine the available variables | Verify that each specialty contains the Manual Numerical Entry box for WBC  AND  The WBC manual entry variable is in the “Laboratory Values” field group. |  |
|  | **VP** | Select the Neurosurgery, Orthopedics, Thoracic, Urology, Vascular, and All Other Non-Cardiac surgical specialties and on each specialty page   * Select the WBC “Numerical” radio button (do not fill in a value) * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Please enter a valid number” is displayed |  |
|  | **VP** | Select the Neurosurgery, Orthopedics, Thoracic, Urology, Vascular, and All Other Non-Cardiac surgical specialties and on each specialty page   * Select the WBC “Numerical” radio button * Fill in a value < 2 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be greater than or equal to 2” is displayed |  |
|  | **VP** | Select the Neurosurgery, Orthopedics, Thoracic, Urology, Vascular, and All Other Non-Cardiac surgical specialties and on each specialty page   * Select the WBC “Numerical” radio button * Fill in a value > 50 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be less than or equal to 50” is displayed |  |
|  | **VP** | Select the Neurosurgery, Orthopedics, Thoracic, Urology, Vascular, and All Other Non-Cardiac surgical specialties and on each specialty page   * Select the WBC “Numerical” radio button * Fill in a value >= 2 and <= 50 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the calculation runs successfully. |  |
|  |  | End of Test Case |  |  |

# TC #26 – ASRC-126: WBC Lab Result Translation

**User Story(s):**  ASRC-126: WBC Lab Result Manual Translation

**Description –** As a provider, I want the WBC lab result translated into "WNL" (Within Normal Limits), or "> 11.0x1000/mm^3" on the user interface, So that I can easily see the result's effect on the calculation.

*Acceptance Criteria:*

* When the user enters a numerical value and runs the calculation, the tool displays the appropriate categorized value from [ASRC-114](https://libertyits.atlassian.net/browse/ASRC-114) (See Test Case #24) on the results page.
* Values >= 2 and <= 11.0x1000/mm^3 are translated to "WNL (Actual Value:<Entered Value>)"
* Values <= 50 and >=11.0x1000/mm^3 are translated to ">11.0x1000/mm^3 (Actual Value:<Entered Value>)"

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #26–* WBC Lab Result Translation** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Neurosurgery, Orthopedics, Thoracic, Urology, Vascular, and All Other Non-Cardiac surgical specialties and on each specialty page   * Enter a number >=2 and <=11 in the WBC manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “WNL (Actual value:<entered value>) ” is displayed for WBC for each specialty |  |
|  | **VP** | Select the Neurosurgery, Orthopedics, Thoracic, Urology, Vascular, and All Other Non-Cardiac surgical specialties and on each specialty page   * Enter a number >11 and <=50 in the BUN manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that ">11.0x1000/mm^3 (Actual Value:<Entered Value>)"is displayed for WBCfor each specialty |  |
|  |  | End of Test Case |  |  |

# TC #27 – ASRC-1: Launch from CPRS Tools Menu

**User Story(s):**  ASRC-1: Launch From CPRS Tools Menu

**Description –** As a VA clinical user, I want to launch the tool from CPRS, So that the tool is easily accessible from my everyday environment.

*Acceptance Criteria:*

* The ASRC Calculator is available as a selection from the CPRS "Tools" menu
* The ASRC Calculator is launched when selected from the "Tools" menu

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #27– Launch from CPRS Tools Menu*** | | | | |
|  | **Step** | Login to the FTL CPRS application | The CPRS application displays and login was successful |  |
|  | **VP** | From the CPRS Tools Menu select “Automated Surgical Risk Calculator” | Verify that the “Automated Surgical Risk Calculator application is launched. |  |
|  |  | End of Test Case |  |  |

# TC #28 – ASRC-2: Share patient context with CPRS

**User Story(s):**  ASRC-2: Share patient context with CPRS

**Description –** As a VA clinical user, I want the tool to preserve patient context with CPRS, so that I do not have to look up the patient in the tool.

*Acceptance Criteria:*

* After launching the tool from within CPRS, the risk calculation pages display the same patient name as CPRS.
* If the user changes patients in CPRS, the calculation should continue in the tool for the original patient.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #28– Share patient context with CPRS*** | | | | |
|  | **Step** | Login to the FTL CPRS application | The CPRS application displays and login was successful |  |
|  | **Step** | From the CPRS Tools Menu select “Automated Surgical Risk Calculator” | Verify that the “Automated Surgical Risk Calculator (ASRC) application is launched |  |
|  | **VP** | Login to the ASRC tool | Verify that the patient selected in CPRS is shown as the “Patient” in the ASRC tool. |  |
|  | **VP** | In CPRS, select another patient. | Verify that the ASRC tool still displays the patient selected when first logged into CPRS in Step 1. |  |
|  | **VP** | In CPRS, restart the ASRC tool. | Verify that the current patient selected in CPRS is now shown as the Patient in ASRC. |  |
|  |  | End of Test Case |  |  |

# TC #29 – ASRC-27: Patient Weight 6 Months Prior Manual Entry

**User Story(s):**  ASRC-27: Patient Weight 6 Months Prior Manual Entry

**Description –** As a provider, I want the tool to allow manual data entry of the patient's weight 6 months prior, so that I can still perform the risk calculation if it could not be automatically retrieved or if I have information that is more current.

*Acceptance Criteria:*

* Tool displays "Weight 6 Months Ago" entry on the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, Vascular, and Other Non-Cardiac variable entry pages.
* Results page displays the entered number.
* Tool validates that the weight is greater than or equal to 0.
* Tool does not require an entry for the field.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application. Test User has access to the most current NSO Test Patient spreadsheet for the FY2013 Thoracic model. (The “as tested” version of the spreadsheet will be provided to the Test User.)

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #29 – Patient Weight 6 Months Prior Manual Entry*** | | | | |
|  | **Step** | * Login to the FTL CPRS * Launch the ASRC Application from the CPRS Tools Menu * Login to the ASRC Application as user 11716 (Radiologist) | * CPRS logs in successfully * ASRC launches and logs in successfully |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page examine the available variables | Verify that each specialty contains the Manual Numerical Entry box for Weight and Weight 6 Months Ago  AND  The Weight manual entries variables are in the “Demographics” field group. |  |
|  | **VP** | Select the Thoracic surgical specialty   * Select the values for all variables needed for the calculation IAW the NSO provided Test Patient spreadsheet for PATIENT 1 (see below) * Enter weights that do NOT show a 10% weight loss (e.g., both weight entries are set to the same value) * Run Calculation * CPT = 32670 * Age=40 * DNR=No * Weight=200, Weight 6 months ago=200 * BMI=20 * Alkaline Phosphatase=119 * BUN=20 * Serum Albumin=4 * WBC=9 * ASA=1 * Diabetes=none * Dialysis=none * Dyspnea=none * Functional=independent * COPD=No * Preop Disseminated Cancer=No * Preop Pneumonia=No * Previous PTCA…=No * Steroid=No * Ventilation within 48 hours=No | Verify that the Value for calculated risk is “.5” |  |
|  | **VP** | Select the Thoracic surgical specialty   * Select the values for all variables needed for the calculation IAW the NSO provided Test Patient spreadsheet for PATIENT 1 (see below) * Leave both the weight entries blank * Run Calculation   Thoracic model data for Patient 1   * CPT = 32670 * Age=40 * DNR=No * Weight=blank, Weight 6 months ago=blank * BMI=20 * Alkaline Phosphatase=119 * BUN=20 * Serum Albumin=4 * WBC=9 * ASA=1 * Diabetes=none * Dialysis=none * Dyspnea=none * Functional=independent * COPD=No * Preop Disseminated Cancer=No * Preop Pneumonia=No * Previous PTCA…=No * Steroid=No * Ventilation within 48 hours=No | Verify that the Value for calculated risk is “.5” |  |
|  | **VP** | Select the Thoracic surgical specialty   * Select the values for all variables needed for the calculation IAW the NSO provided Test Patient spreadsheet for PATIENT 6 (see below) * Enter weights that DO show a 10% weight loss * Run Calculation * CPT = 43122 * Age=65 * DNR=No * Weight=200 : Weight 6 months ago=250 * BMI=30 * Alkaline Phosphatase=80 * BUN=18 * Serum Albumin=3.4 * WBC=7 * ASA=3 * Diabetes=Insulin * Dialysis=Yes * Dyspnea=Moderate * Functional=Totally dependent * COPD=Yes * Preop Disseminated Cancer=Yes * Preop Pneumonia=Yes * Previous PTCA…=Yes * Steroid=Yes * Ventilation within 48 hours=Yes | Verify that the Value for calculated risk is “75.4” |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedic, Thoracic, Urology, Vascular, and Other Non-Cardiac surgical specialties and on each specialty page   * Fill in Weight as -1 * Fill in Weight 6 Months ago as “two” * Select values for all other variables needed for the calculation * Run Calculation | Verify that   * To the right of Weight - Message “Value must be greater than or equal to 0.” is displayed * To the right of Weight 6 Months Ago - Message “Please Enter A Valid Number” is displayed |  |
|  |  | End of Test Case |  |  |

# TC #30 – ASRC-43: FY2013 Thoracic 30-Day Risk Model

**User Story(s):**  ASRC-43: FY2013 Thoracic 30-Day Risk Model

**Description –** As a provider, I want the tool to perform the FY2013 Thoracic 30-day risk calculation, so that I know the patient's 30-day mortality risk for the particular procedure.

*Acceptance Criteria:*

* All standard variables and speciality-specific custom variables are considered.
* The result must match the test patient set provided by the NSO, excluding the rows that imply features that have not been implemented.
* The tool clearly delineates which input controls belong to which variable names.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application. Test User has access to the most current NSO Test Patient spreadsheet for the FY2013 Thoracic model (The “as tested” version of the spreadsheet will be provided to the Test User.)

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #30 – FY2013 Thoracic 30-day Risk Model*** | | | | |
|  | **Step** | * Login to the FTL CPRS * Launch the ASRC Application from the CPRS Tools Menu * Login to the ASRC Application as user 11716 (Radiologist) | * CPRS logs in successfully * ASRC launches and logs in successfully |  |
|  | **VP** | Select the Thoracic surgical specialty   * Select the values for all variables needed for the calculation IAW the NSO provided Test Patient spreadsheet for PATIENT 1 (see below) * Either enter weights that do NOT show a 10% weight loss (e.g., both weight entries are set to the same value) or leave the “Weight” entries blank. * Run Calculation * CPT = 32670 * Age=40 * DNR=No * Weight=200, Weight 6 months ago=200 * BMI=20 * Alkaline Phosphatase=119 * BUN=20 * Serum Albumin=4 * WBC=9 * ASA=1 * Diabetes=none * Dialysis=none * Dyspnea=none * Functional=independent * COPD=No * Preop Disseminated Cancer=No * Preop Pneumonia=No * Previous PTCA…=No * Steroid=No * Ventilation within 48 hours=No | Verify that the Value for calculated risk is “.5” |  |
|  | **VP** | Select the Thoracic surgical specialty   * Select the values for all variables needed for each patient IAW the NSO provided spreadsheet for the FY2013 Thoracic Model. * Run the Calculation for each model. | Verify the expected “Calculated Risk” result is consistent with the spreadsheet.  (Note: If discrepancies with the test patient data are found, please note the exact test patient number and the nature of the issue.) |  |
|  |  | End of Test Case |  |  |

# TC #31 – ASRC-113: Creatinine Lab Result Manual WNL/Abnormal

**User Story(s):**  ASRC-113: Creatinine Lab Result Manual WNL/Abnormal

**Description 1 –** As a provider, I want the tool to allow "Presumed WNL"(>0 and <=1.2), "Presumed >1.2 mg/dl" or "Presumed WNL” (Cardiac), "Presumed > 3.0 mg/dl" (Cardiac), or "Presumed < 1.5 mg/dl" (Cardiac) for the Creatinine lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* General Surgery, Neurosurgery, Orthopedics, Urology, Vascular, and Other Surgical Specialties variable entry page contains radio buttons to select Creatinine:
* “Presumed WNL” (>0 and <=1.2)
* “Presumed >1.2 mg/dl”
* Tool displays entry on the calculation results page
* Cardiac variable entry page contains radio buttons to select Creatinine:
* “Presumed <1.5 mg/dl”
* “Presumed 1.5 to 3.0 mg/dl”
* “Presumed >3.0 mg/dl”
* Tools displays entry on the calculation results page

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #31 –* Creatinine Lab Result Manual WNL/Abnormal** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | General Surgery, Neurosurgery, Orthopedics, Urology, Vascular, Other Surgical Specialties, and Cardiac and on each specialty page examine the available variables | Verify that each specialty contains radio buttons to select Creatinine values  AND  The Creatinine variables are in the “Laboratory Values” field group |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the “Presumed WNL” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed WNL” is displayed for Creatinine for each specialty  AND  Verify that “Presumed WNL” is displayed in the left most column |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the “Presumed >1.2 mg/dl” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed >1.2 mg/dl” is displayed for Creatinine for each specialty |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Don’t select any value for Creatinine * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Please enter the required value” is displayed for each specialty |  |
|  | **VP** | Select Cardiac and examine the available variables   * Select the “Presumed <1.5 mg/dl” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed <1.5 mg/dl” is displayed for Creatinine  AND  Verify that “Presumed <1.5 mg/dl” is displayed in the left most column |  |
|  | **VP** | Select Cardiac and examine the available variables   * Select the “Presumed 1.5 to 3.0 mg/dl” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed >1.2 mg/dl” is displayed for Creatinine for each specialty  AND  Verify that “Presumed 1.5 to 3.0 mg/dl” is displayed in the middle column |  |
|  | **VP** | Select Cardiac and examine the available variables   * Select the “Presumed >3.0 mg/dl” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed >3.0 mg/dl” is displayed for Creatinine for each specialty |  |
|  | **VP** | Select Cardiac and examine the available variables   * Don’t select any value for Creatinine * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Please enter the required value” is displayed for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #32 – ASRC-77: Creatinine Lab Result Manual Entry Numerical

**User Story(s):**  ASRC-77: Creatinine Lab Result Manual Entry Numerical

**Description –** As a provider, I want the tool to allow manual entry of the Creatinine lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* The calculation result page should display the numerical value if available
* General Surgery, Neurosurgery, Orthopedics, Urology, Vascular, Other Surgical Specialty, and Cardiac variable entry page contains a numerical input box for Creatinine:
* The tool will accept input that is >0 and <=12

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #32 –* Creatinine Lab Result Manual Entry Numerical** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Urology, Vascular, Other Surgical Specialty, and Cardiac and on each specialty page examine the available variables | Verify that each specialty contains the Manual Numerical Entry box for Creatinine  AND  The Creatinine manual entry variable is in the “Laboratory Values” field group |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Urology, Vascular, Other Surgical Specialty, and Cardiac and on each specialty page examine the available variables   * Select the Creatinine “Numerical” radio button (do not fill in a value) * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Please enter the required value” is displayed |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Urology, Vascular, Other Surgical Specialty, and Cardiac and on each specialty page examine the available variables   * Select the Creatinine “Numerical” radio button * Fill in a value < 0 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be greater than 0” is displayed |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Urology, Vascular, Other Surgical Specialty, and Cardiac and on each specialty page examine the available variables   * Select the Creatinine “Numerical” radio button * Fill in a value >12 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be less than or equal to 12” is displayed |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Urology, Vascular, Other Surgical Specialty, and Cardiac and on each specialty page examine the available variables   * Select the Creatinine “Numerical” radio button * Fill in a value >0 and <=12 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the calculation runs successfully. |  |
|  |  | End of Test Case |  |  |

# TC #33 – ASRC-102: Creatinine Lab Result Translation

**User Story(s):**  ASRC-102: Creatinine Lab Result Manual Translation

**Description –** As a provider, I want the Creatinine lab result translated into "Presumed WNL", "Presumed > 1.2 mg/dl" or "Presumed < 1.5 mg/dl" (Cardiac) or "Presumed > 3.0 mg/dl" (Cardiac) on the user interface, so that I can easily see the result's effect on the calculation.

*Acceptance Criteria:*

* When the user enters a numerical value and runs the calculation in General Surgery, Neurosurgery, Orthopedics, Urology, Vascular, and Other Surgical Specialties, the tool displays the appropriate categorized value from the results page
* Values >0 and <=1.2 are translated to “Presumed WNL (Actual Value: <entered value>)”
* Values >1.2 and <=12 are translated to “Presumed >1.2 mg/dl (Actual Value: <entered value>)”
* When the user enters a numerical value and runs the calculation in Cardiac, the tool displays the appropriate categorized value from the results page
* Values > 0 and < 1.5 are translated to "Presumed < 1.5 mg/dl (Actual Value<Entered Value>)"
* Values > 1.5 and <= 3.0 are translated to "Presumed 1.5 - 3.0 mg/dl(Actual Value<Entered Value>)”
* Values > 3 and <= 12 are translated to "Presumed > 3.0 mg/dl (Actual Value<Entered Value>)"

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #33 –* Creatinine Lab Result Translation** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Enter a number >0 and <=1.2 in the Creatinine manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “WNL (Actual value:<entered value>) ” is displayed for Creatinine for each specialty |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Enter a number >1.2 and <=12 in the Creatinine manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed >1.2 mg/dl (Actual Value: <entered value>)” is displayed for Creatinine for each specialty |  |
|  | **VP** | Select Cardiac and examine the available variables   * Enter a number >0 and <1.5 in the Creatinine manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed <1.5 mg/dl (Actual Value: <entered value>)” is displayed for Creatinine |  |
|  | **VP** | Select Cardiac and examine the available variables   * Enter a number >1.5 and <=3.0 in the Creatinine manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed 1.5 – 3.0 mg/dl (Actual Value: <entered value>)” is displayed for Creatinine |  |
|  | **VP** | Select Cardiac and examine the available variables   * Enter a number >3 and <=12 in the Creatinine manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed >3.0 mg/dl (Actual Value: <entered value>)” is displayed for Creatinine |  |
|  |  | End of Test Case |  |  |

# TC #34 – ASRC-123: Bilirubin Lab Result Manual WNL/Abnormal

**User Story(s):**  ASRC-123: Bilirubin Lab Result Manual WNL/Abnormal

**Description –** As a provider, I want the tool to allow "Presumed WNL"(>=0 and <=1) or "Presumed > 1.0 mg/dl" for the Bilirubin lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* General Surgery, Vascular, and Other Surgical Specialty variable entry page contains radio buttons to select Bilirubin:
* “Presumed WNL” (>=0 and <=1)
* “Presumed > 1.0 mg/dl”
* Tool displays entry on the calculation results page

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #34 –* Bilirubin Lab Result Manual WNL/Abnormal** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables | Verify that each specialty contains radio buttons to select Bilirubin values  AND  The Bilirubin variables are in the “Laboratory Values” field group |  |
|  | **VP** | Select the General Surgery, Vascular, and Other Surgical Specialties and on each specialty page   * Select the “Presumed WNL” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed WNL” is displayed for Bilirubin for each specialty  AND  Verify that “Presumed WNL” is displayed in the left most column |  |
|  | **VP** | Select the General Surgery, Vascular, and Other Surgical Specialties and on each specialty page   * Select the “Presumed > 1.0 mg/dl” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed > 1.0 mg/dl” is displayed for Bilirubin for each specialty |  |
|  | **VP** | Select the General Surgery, Vascular, and Other Surgical Specialties and on each specialty page   * Don’t select any value for Bilirubin * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Please enter the required value” is displayed for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #35 – ASRC-87: Bilirubin Lab Result Manual Entry Numerical

**User Story(s):**  ASRC-87: Bilirubin Lab Result Manual Entry Numerical

**Description –** As a provider, I want the tool to allow manual entry of the Bilirubin lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* The calculation result page should display the numerical value if available.
* General Surgery, Vascular, and Other Surgical Specialties variable entry page contains a numerical input box for Bilirubin:
* The tool will accept input that is >=0 and <=6.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #35 –* Bilirubin Lab Result Manual Entry Numerical** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables | Verify that each specialty contains the Manual Numerical Entry box for Bilirubin  AND  The Bilirubin manual entry variable is in the “Laboratory Values” field group |  |
|  | **VP** | Select the General Surgery, Vascular, and Other Surgical Specialties and on each specialty page   * Select the Bilirubin “Numerical” radio button (do not fill in a value) * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Please enter the required value” is displayed |  |
|  | **VP** | Select the General Surgery, Vascular, and Other Surgical Specialties and on each specialty page   * Select the Bilirubin “Numerical” radio button * Fill in a value <0 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be greater than or equal to 0” is displayed |  |
|  | **VP** | Select the General Surgery, Vascular, and Other Surgical Specialties and on each specialty page   * Select the Bilirubin “Numerical” radio button * Fill in a value >6 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be less than or equal to 6” is displayed |  |
|  | **VP** | Select the General Surgery, Vascular, and Other Surgical Specialties and on each specialty page   * Select the Bilirubin “Numerical” radio button * Fill in a value >=0 and <= 6 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the calculation runs successfully. |  |
|  |  | End of Test Case |  |  |

# TC #36 – ASRC-135: Bilirubin Lab Result Translation

**User Story(s):**  ASRC-135: Bilirubin Lab Result Manual Translation

**Description –** As a provider, I want the Bilirubin lab result translated into "Presumed WNL" or "Presumed > 1.0 mg/dl" on the user interface, so that I can easily see the result's effect on the calculation.

*Acceptance Criteria:*

* When the user enters a numerical value and runs the calculation in General Surgery, Vascular, or Other Surgical Specialties, the tool displays the appropriate categorized value on the results page
* Values >=0 and <=1 are translated to “WNL (Actual Value: <entered value>)”
* Values > 1 and <=6 translated to “> 1 mg/dl (Actual Value: <entered value>)”

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #36 –* Bilirubin Lab Result Translation** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Vascular, and Other Surgical Specialties and on each specialty page   * Enter a number >=0 and <=1 in the Bilirubin manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “WNL (Actual value:<entered value>) ” is displayed for Bilirubin for each specialty |  |
|  | **VP** | Select the General Surgery, Vascular, and Other Surgical Specialties and on each specialty page   * Enter a number > 1 and <=6 in the Bilirubin manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “> 1 mg/dl (Actual value:<entered value>) ” is displayed for Bilirubin for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #37 – ASRC-115: Platelets Lab Result Manual WNL/Abnormal

**User Story(s):**  ASRC-115: Platelets Lab Result Manual WNL/Abnormal

**Description –** As a provider, I want the tool to allow "Presumed WNL"(>150 and <=750) or "Presumed <=150 x 1000/mm^3" for the Platelets lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* General Surgery, Neurosurgery, Orthopedics, Vascular, and Other Surgical Specialty variable entry page contains radio buttons to select Platelets:
* “Presumed WNL” (>150 and <=750)
* “Presumed <=150 x 1000/mm^3”
* Tool displays entry on the calculation results pag

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #37 –* Platelets Lab Result Manual WNL/Abnormal** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables | Verify that each specialty contains radio buttons to select Platelets values  AND  The Platelets variables are in the “Laboratory Values” field group |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the “Presumed WNL” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed WNL” is displayed for Platelets for each specialty  AND  Verify that “Presumed WNL” is displayed in the left most column |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the “Presumed <=150 x 1000/mm^3” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed <=150 x 1000/mm^3” is displayed for Platelets for each specialty |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Don’t select any value for Platelets * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Please enter the required value” is displayed for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #38 – ASRC-79: Platelets Lab Result Manual Entry Numerical

**User Story(s):**  ASRC-79: Platelets Lab Result Manual Entry Numerical

**Description –** As a provider, I want the tool to allow manual entry of the Platelets lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* The calculation result page should display the numerical value if available
* General Surgery, Neurosurgery, Orthopedics, Vascular, and Other Surgical Specialties variable entry page contains a numerical input box for Platelets:
* The tool will accept input that is >=30 and <=750

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #38 –* Platelets Lab Result Manual Entry Numerical** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables | Verify that each specialty contains the Manual Numerical Entry box for Platelets  AND  The Platelets manual entry variable is in the “Laboratory Values” field group |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the Platelets “Numerical” radio button (do not fill in a value) * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Please enter the required value” is displayed |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the Platelets “Numerical” radio button * Fill in a value < 30 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be greater than or equal to 30” is displayed |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the Platelets “Numerical” radio button * Fill in a value >750 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be less than or equal to 750” is displayed |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the Platelets “Numerical” radio button * Fill in a value >=30 and <=750 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the calculation runs successfully. |  |
|  |  | End of Test Case |  |  |

# TC #39 – ASRC-127: Platelets Lab Result Translation

**User Story(s):**  ASRC-127: Platelets Lab Result Manual Translation

**Description –** As a provider, I want the Platelets lab result translated into "Presumed WNL" or "Presumed <=150 x 1000/mm^3" on the user interface, so that I can easily see the result's effect on the calculation.

*Acceptance Criteria:*

* When the user enters a numerical value and runs the calculation in General Surgery, Neurosurgery, Orthopedics, Vascular, or Other Surgical Specialties, the tool displays the appropriate categorized value on the results page
* Values >150 and <=750 are translated to “Presumed WNL (Actual Value: <entered value>)”
* Values <=150 are translated to “Presumed <=150 x 1000/mm^3 (Actual Value: <entered value>)”

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #39 –* Platelets Lab Result Translation** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Enter a number >150 and <=750 in the Platelets manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “WNL (Actual value:<entered value>) ” is displayed for Platelets for each specialty |  |
|  | **VP** | Select the General Surgery, Neurosurgery, Orthopedics, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Enter a number <=150 in the Platelets manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “<=150 x 1000/mm^3 (Actual Value: <entered value>)” is displayed for Platelets for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #40 – ASRC-82: INR Lab Result Manual Entry Numerical

**User Story(s):**  ASRC-82: INR Lab Result Manual Entry Numerical

**Description –** As a provider, I want the tool to allow manual entry of the INR lab result,   
so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* The calculation result page should display the numerical value if available
* General Surgery, Neurosurgery, Orthopedic, Other Surgical Specialty, Urology, and Vascular variable entry page contains a numerical input box for INR:
* The tool will accept input that is greater > 0 and <=7

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results (P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #40 –* INR Lab Result Manual Entry Numerical** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | General Surgery, Neurosurgery, Orthopedic, Other Surgical Specialty, Urology, and Vascular surgical specialties and on each specialty page examine the available variables | Verify that each specialty contains the Manual Numerical Entry box for INR  AND  The INR manual entry variable is in the “Laboratory Values” field group. |  |
|  | **VP** | General Surgery, Neurosurgery, Orthopedic, Other Surgical Specialty, Urology, and Vascular surgical specialties and on each specialty page   * Select the INR “Numerical” radio button * Fill in a value < 0 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be greater than 0” is displayed |  |
|  | **VP** | General Surgery, Neurosurgery, Orthopedic, Other Surgical Specialty, Urology, and Vascular surgical specialties and on each specialty page   * Select the INR “Numerical” radio button * Fill in a value > 7 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be less than or equal to 7” is displayed |  |
|  | **VP** | General Surgery, Neurosurgery, Orthopedic, Other Surgical Specialty, Urology, and Vascular surgical specialties and on each specialty page   * Select the Serum Albumin “Numerical” radio button * Fill in a value >0 and <=7 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the calculation runs successfully. |  |
|  |  | End of Test Case |  |  |

# TC #41 – ASRC-19: Patient Age Automatic Retrieval

**User Story(s):**  ASRC-19: Patient Age Automatic Retrieval

**Description –** As a provider, I want the tool to automatically retrieve the patient's age from VistA, so that I do not have to enter it myself.

*Acceptance Criteria:*

* When available in VistA, the Patient Age retrieved from VistA is correctly displayed in the "Age" entry box on all appropriate Surgical Specialty pages.
* When not available in VistA, the Age manual entry box is blank

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results (P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #41 –* Patient Age Automatic Retrieval** | | | | |
|  | **Step** | Login to the CPRS | CPRS application displays and login was successful |  |
|  | **Step** | Choose a patient, note the age of the patient chosen | The patient’s age is noted |  |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select each Surgical Specialty with Age and examine the age input field | Verify the ASRC tool automatically displays the retrieved value from CPRS |  |
|  |  | End of Test Case |  |  |

# TC #42 – ASRC-92: Patient Gender Automatic Retrieval

**User Story(s):**  ASRC-92: Patient Gender Automatic Retrieval

**Description –** As a provider, I want the tool to automatically retrieve the patient's gender from VistA, so that I do not have to enter it myself.

*Acceptance Criteria:*

* When available in VistA, the Patient Gender retrieved from VistA is correctly selected on all appropriate Surgical Specialty pages.
* When not available in VistA, the Gender is not selected.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results (P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #42 –* Patient Gender Automatic Retrieval** | | | | |
|  | **Step** | Login to the CPRS | CPRS application displays and login was successful |  |
|  | **Step** | As you are choosing a patient, note the gender of the patient chosen | Gender for the selected patient is noted. |  |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select each Surgical Specialty with gender and examine the gender radio button. | Verify the ASRC tool automatically displays the retrieved value from CPRS |  |
|  |  | End of Test Case |  |  |

# TC #43 – ASRC-25: Patient Weight Automatic Retrieval

**User Story(s):**  ASRC-25: Patient Weight Automatic Retrieval

**Description –** As a provider, I want the tool to automatically retrieve the patient's current weight from VistA, so that it can calculate BMI automatically if not discretely available.

*Acceptance Criteria:*

* The tool displays the patient weight in pounds from VistA in read-only form. The latest value should be retrieved, no matter how old it is.
* The tool displays the date of the measurement along with the retrieved value.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results (P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #43 –* Patient Weight Automatic Retrieval** | | | | |
|  | **Step** | Login to the CPRS | CPRS application displays and login was successful |  |
|  | **Step** | Choose a patient (twentyseven, patient recommended), note the most recent weight of the patient chosen and the date of the measurement | The patient’s weight is located in CPRS “Vitals” field group |  |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select each Surgical Specialty with Weight and examine the Weight input field. | Verify the ASRC tool automatically displays the most recent retrieved value and the date of the measurement from VistA CPRS |  |
|  |  | End of Test Case |  |  |

# TC #44 – ASRC-93: Patient BMI Automatic Retrieval

**User Story(s):**  ASRC-93: Patient BMI Automatic Retrieval

**Description –** As a provider, I want the tool to automatically retrieve the patient's current BMI from VistA, so that I do not have to enter it myself.

*Acceptance Criteria:*

* The tool initially populates the BMI input with the value retrieved from VistA, if available. The latest value should be retrieved, no matter how old it is.
* The tool displays the date of the measurement along with the retrieved value.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results (P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #44–* Patient BMI Automatic Retrieval** | | | | |
|  | **Step** | Login to the CPRS | CPRS application displays and login was successful |  |
|  | **Step** | Choose a patient (recommend twentyseven,patient), note the BMI of the patient chosen | BMI in CPRS is recorded. |  |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select each Surgical Specialty and examine the BMI field. | Verify the ASRC tool automatically displays the BMI value noted in step 1 from VistA CPRS |  |
|  |  | End of Test Case |  |  |

# TC #45 – ASRC-240: Change Text to “Other Surgical Specialty”

**User Story(s):**  ASRC-240: Change Text to “Other Surgical Specialty”

**Description –** As a non-cardiac provider, I want the other non-cardiac specialties displayed as "Other Surgical Specialty,” so that there is less of a delineation between Cardiac and Non-Cardiac specialties.

*Acceptance Criteria:*

* An “Other Surgical Specialty” radio button is displayed under the “Surgical Specialty” field group in the ASRC tool

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results (P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #45 –* Change Text to “Other Surgical Specialty”** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the “Other Surgical Specialty” radio button and click continue | Verify that the “Other Surgical Specialty” screen is displayed |  |
|  |  | End of Test Case |  |  |

# TC #46 – ASRC-26: Patient Weight 6 Months Prior Automatic Retrieval

**User Story(s):**  ASRC-26: Patient Weight 6 Months Prior Automatic Retrieval

**Description –** As a provider, I want the tool to automatically retrieve the patient's weight 6 months prior from VistA, so that I don't have to enter it myself.

*Acceptance Criteria:*

* The retrieved weight in pounds used for "6 months ago" can be anywhere between 6 and 12 months prior to the most recent weight measurement.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results (P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #46 –* Patient Weight 6 Months Prior Automatic Retrieval** | | | | |
|  | **Step** | Login to the Vitals GUI | Vitals GUI application displays and login was successful |  |
|  | **Step** | Choose a patient, note the most current weight of the patient and the most recent weight of the patient 6 to 12 months prior (to the most current weight) | NOTE: Twentyseven, patient is recommended. |  |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select each Surgical Specialty with Weight and examine the Weight input field. | Verify the ASRC tool automatically displays the correct values from the Vitals GUI in the “Weight” and “Wt >= 6 Months Ago” boxes and the date of the measurements |  |
|  |  | End of Test Case |  |  |

# TC #47 – ASRC-106: FY2013 General Surgery 30-Day Risk Model

**User Story(s):**  ASRC-106: FY2013 General Surgery 30-Day Risk Model

**Description –** As a provider, I want the tool to perform the FY2013 General Surgery 30-day risk calculation, so that I know the patient's 30-day mortality risk for the particular procedure.

*Acceptance Criteria:*

* All standard variables and specialty-specific custom variables are considered.
* The result must match the test patient set provided by the NSO, excluding the rows that imply features that have not been implemented.
* The tool clearly delineates which input controls belong to which variable names.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application. Test User has access to the most current NSO Test Patient spreadsheet for the FY2013 General Surgery model (The “as tested” version of the spreadsheet will be provided to the Test User.)

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #47 – FY2013 General Surgery 30-day Risk Model*** | | | | |
|  | **Step** | * Login to the FTL CPRS * Launch the ASRC Application from the CPRS Tools Menu * Login to the ASRC Application as user 11716 (Radiologist) | * CPRS logs in successfully * ASRC launches and logs in successfully |  |
|  | **VP** | Select the General Surgery surgical specialty   * Select the values for all variables needed for the calculation IAW the NSO provided Test Patient spreadsheet for PATIENT 1 (see below) * Either enter weights that do NOT show a 10% weight loss (e.g., both weight entries are set to the same value) or leave the “Weight” entries blank. * Run Calculation | Verify that the Value for calculated risk is “.5” |  |
|  |  | * CPT = 49505 * Age=73 * BMI= 26.28 * ASA= 2 * DNR=No * Emergency Case= No * Dyspnea= with Moderate Exertion * Functional= Independent * Preop ascites= 1 * Intraop ascites= No * Preoperative Pneumonia= No * Preop Disseminated Cancer= No * Intraop Disseminated Cancer= No * Esophageal Varices= No * History of CHF= No * History of COPD= No * History of PVD= No * Impaired Sensorium= No * Radiotherapy in 90 days Preop= No * Preop Renal Failure= No * Ventilation within 48 hrs= No * Wound Class= Clean * Weight Loss >10% 6 mos Preoperative= No * INR= 1 * Alkaline Phosphatase= 97 * Bilirubin= 0.4 * BUN= 30 * Creatinine= 1 * Platelets= 182 * Serum Albumin= 4.1 |  |  |
|  | **VP** | Select the General Surgery surgical specialty   * Select the values for all variables needed for each of the remaining patients IAW the NSO provided Test Patient spreadsheet for the FY2013 General Surgery Model. * Run the Calculation for each model. | Verify the expected “Calculated Risk” result is consistent with the spreadsheet.  (Note: If discrepancies with the test patient data are found, please note the exact test patient number and the nature of the issue.) |  |
|  |  | End of Test Case |  |  |

# TC #48 – ASRC-116: Hematocrit Lab Result Manual WNL/Abnormal

**User Story(s):**  ASRC-116: Hematocrit Lab Result Manual WNL/Abnormal

**Description –** As a provider, I want the tool to allow "Presumed WNL" (>38 and <=60) or "Presumed <=38%" (>=20 and <=38) for the Hematocrit lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* Neurosurgery, Orthopedic, and Other Surgical Specialties variable entry page contains radio buttons to select Hematocrit:
* “Presumed WNL” (>38 and <=60)
* “Presumed <=38%” (>=20 and <=38)
* Tool displays entry on the calculation results page.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #48 –* Hematocrit Lab Result Manual WNL/Abnormal** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, and Other Surgical Specialties and on each specialty page examine the available variables | Verify that each specialty contains radio buttons to select Hematocrit values  AND  The Hematocrit variables are in the “Laboratory Values” field group |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the “Presumed WNL” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed WNL” is displayed for Hematocrit for each specialty  AND  Verify that “Presumed WNL” is displayed in the left most column |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the "Presumed <=38%" radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that "Presumed <=38%" is displayed for Hematocrit for each specialty |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, and Other Surgical Specialties and on each specialty page examine the available variables   * Don’t select any value for Hematocrit * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Please enter the required value” is displayed for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #49 – ASRC-80: Hematocrit Lab Result Manual Entry Numerical

**User Story(s):**  ASRC-80: Hematocrit Lab Result Manual Entry Numerical

**Description –** As a provider, I want the tool to allow manual entry of the Hematocrit lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* Neurosurgery, Orthopedic, and Other Surgical Specialties:
* The calculation result page should display the numerical value if available.
* The Range validation is >=20 and <=60

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #49 –* Hematocrit Lab Result Manual Entry Numerical** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, and Other Surgical Specialties and on each specialty page examine the available variables | Verify that each specialty contains the Manual Numerical Entry box for Hematocrit  AND  The Hematocrit manual entry variable is in the “Laboratory Values” field group |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the Hematocrit “Numerical” radio button (do not fill in a value) * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Please enter the required value” is displayed |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the Hematocrit “Numerical” radio button * Fill in a value <20 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be greater than or equal to 20” is displayed |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the Hematocrit “Numerical” radio button * Fill in a value >60 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be less than or equal to 60” is displayed |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the Hematocrit “Numerical” radio button * Fill in a value >=20 and <=60 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the calculation runs successfully. |  |
|  |  | End of Test Case |  |  |

# TC #50 – ASRC-128: Hematocrit Lab Result Translation

**User Story(s):**  ASRC-128: Hematocrit Lab Result Manual Translation

**Description –** As a provider, I want the Hematocrit lab result translated into " WNL (Actual Value<Entered Value>)" or "<=38% (Actual Value<Entered Value>)" on the user interface, so that I can easily see the result's effect on the calculation.

*Acceptance Criteria:*

* Neurosurgery, Orthopedic, and Other Surgical Specialties variable translations:
* Entries >38 and <=60 are translated to "WNL (Actual Value<Entered Value>)"
* Entries >=20 and <=38 are translated to "<=38% (Actual Value<Entered Value>)"

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #50 –* Hematocrit Lab Result Translation** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, and Other Surgical Specialties and on each specialty page examine the available variables   * Enter a number >38 and <=60 in the Hematocrit manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “WNL (Actual value:<entered value>) ” is displayed for Hematocrit for each specialty |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, and Other Surgical Specialties and on each specialty page examine the available variables   * Enter a number >=20 and <=38 in the Hematocrit manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that "<=38% (Actual Value<Entered Value>)" is displayed for Hematocrit for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #51 – ASRC-117: SGOT Lab Result Manual WNL/Abnormal

**User Story(s):**  ASRC-117: SGOT Lab Result Manual WNL/Abnormal

**Description –** As a provider, I want the tool to allow "Presumed WNL" (>=2 and <=40) or "Presumed >40 mU/ml” (>40 and <=300) for the SGOT lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* Neurosurgery, Orthopedic, Urology, Vascular, and Other Surgical Specialties variable entry page contains radio buttons to select SGOT:
* “Presumed WNL” (>=2 and <=40)
* “Presumed >40 mU/ml” (>40 and <=300)
* Tool displays entry on the calculation results page.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #51 –* SGOT Lab Result Manual WNL/Abnormal** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables | Verify that each specialty contains radio buttons to select SGOT values  AND  The SGOT variables are in the “Laboratory Values” field group |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the “Presumed WNL” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed WNL” is displayed for SGOT for each specialty  AND  Verify that “Presumed WNL” is displayed in the left most column |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the “Presumed >40 mU/ml” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that " Presumed >40 mU/ml " is displayed for SGOT for each specialty |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Don’t select any value for SGOT * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Please enter the required value” is displayed for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #52 – ASRC-81: SGOT Lab Result Manual Entry Numerical

**User Story(s):**  ASRC-81: SGOT Lab Result Manual Entry Numerical

**Description –** As a provider, I want the tool to allow manual entry of the SGOT lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* Neurosurgery, Orthopedic, Urology, Vascular, and Other Surgical Specialties:
* The calculation result page should display the numerical value if available.
* The Range validation is >=2 and <=300

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #52 –* SGOT Lab Result Manual Entry Numerical** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables | Verify that each specialty contains the Manual Numerical Entry box for SGOT  AND  The SGOT manual entry variable is in the “Laboratory Values” field group |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the SGOT “Numerical” radio button (do not fill in a value) * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Please enter the required value” is displayed |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the SGOT “Numerical” radio button * Fill in a value <2 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be greater than or equal to 2” is displayed |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the SGOT “Numerical” radio button * Fill in a value >300 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be less than or equal to 300” is displayed |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the SGOT “Numerical” radio button * Fill in a value >=2 and <=300 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the calculation runs successfully. |  |
|  |  | End of Test Case |  |  |

# TC #53 – ASRC-129: SGOT Lab Result Translation

**User Story(s):**  ASRC-120: SGOT Lab Result Manual Translation

**Description –** As a provider, I want the SGOT lab result translated into “WNL (Actual Value<Entered Value>)"or ">40 mU/ml (Actual Value<Entered Value>)" on the user interface, so that I can easily see the result's effect on the calculation.

*Acceptance Criteria:*

* Neurosurgery, Orthopedic, Urology, Vascular, and Other Surgical Specialties variable translations:
* Entries >=2 and <=40 are translated to "WNL (Actual Value<Entered Value>)"
* Entries >40 and <=300 are translated to “>40 mU/ml (Actual Value<Entered Value>)"

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #53 –* SGOT Lab Result Translation** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Enter a number >=2 and <=40 in the SGOT manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “WNL (Actual value:<entered value>) ” is displayed for SGOT for each specialty |  |
|  | **VP** | Select the Neurosurgery, Orthopedic, Urology, Vascular, and Other Surgical Specialties and on each specialty page examine the available variables   * Enter a number >40 and <=300 in the SGOT manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “>40 mU/ml (Actual Value<Entered Value>)" is displayed for SGOT for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #54 – ASRC-121: Serum Sodium Lab Result Manual WNL/Abnormal

**User Story(s):**  ASRC-121: Serum Sodium Lab Result Manual WNL/Abnormal

**Description –** As a provider, I want the tool to allow "Presumed <=135 mEq/L” (>=115 and <=135),"Presumed WNL" (>135 and <=145) or "Presumed >145 mEqL” (>145 and <=150) for the Serum Sodium lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* Orthopedic, Urology, and Other Surgical Specialties variable entry page contains radio buttons to select Serum Sodium:
* "Presumed <=135 mEq/L” (>=115 and <=135)
* "Presumed WNL" (>135 and <=145)
* "Presumed >145 mEqL” (>145 and <=150)
* Tool displays entry on the calculation results page.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #54 –* Serum Sodium Lab Result Manual WNL/Abnormal** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Orthopedic, Urology, and Other Surgical Specialties and on each specialty page examine the available variables | Verify that each specialty contains radio buttons to select Serum Sodium values  AND  The Serum Sodium variables are in the “Laboratory Values” field group |  |
|  | **VP** | Select the Orthopedic, Urology, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the “Presumed WNL” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed WNL” is displayed for Serum Sodium for each specialty  AND  Verify that “Presumed WNL” is displayed in the left most column |  |
|  | **VP** | Select the Orthopedic, Urology, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the “Presumed <=135 mEq/L” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed <=135 mEq/L” is displayed for Serum Sodium for each specialty |  |
|  | **VP** | Select the Orthopedic, Urology, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the “Presumed >145 mEqL” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that " Presumed >145 mEqL " is displayed for Serum Sodium for each specialty |  |
|  | **VP** | Select the Orthopedic, Urology, and Other Surgical Specialties and on each specialty page examine the available variables   * Don’t select any value for Serum Sodium * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Please enter the required value” is displayed for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #55 – ASRC-85: Serum Sodium Lab Result Manual Entry Numerical

**User Story(s):**  ASRC-85: Serum Sodium Lab Result Manual Entry Numerical

**Description –** As a provider, I want the tool to allow manual entry of the Serum Sodium lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* Orthopedic, Urology, and Other Surgical Specialties:
* The calculation result page should display the numerical value if available.
* The Range validation is >=115 and <=150

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #55 –* Serum Sodium Lab Result Manual Entry Numerical** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Orthopedic, Urology, and Other Surgical Specialties and on each specialty page examine the available variables | Verify that each specialty contains the Manual Numerical Entry box for Serum Sodium  AND  The Serum Sodium manual entry variable is in the “Laboratory Values” field group |  |
|  | **VP** | Select the Orthopedic, Urology, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the Serum Sodium “Numerical” radio button (do not fill in a value) * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Please enter the required value” is displayed |  |
|  | **VP** | Select the Orthopedic, Urology, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the Serum Sodium “Numerical” radio button * Fill in a value <115 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be greater than or equal to 115” is displayed |  |
|  | **VP** | Select the Orthopedic, Urology, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the Serum Sodium “Numerical” radio button * Fill in a value >150 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be less than or equal to 150” is displayed |  |
|  | **VP** | Select the Orthopedic, Urology, and Other Surgical Specialties and on each specialty page examine the available variables   * Select the Serum Sodium “Numerical” radio button * Fill in a value >=115 and <=150 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the calculation runs successfully. |  |
|  |  | End of Test Case |  |  |

# TC #56 – ASRC-133: Serum Sodium Lab Result Translation

**User Story(s):**  ASRC-133: Serum Sodium Lab Result Manual Translation

**Description –** As a provider, I want the Serum Sodium lab result translated into "<=135 mEq/L (Actual Value<Entered Value>)", “WNL (Actual Value<Entered Value>)"or ">145 mEq/L (Actual Value<Entered Value>)" on the user interface, so that I can easily see the result's effect on the calculation.

*Acceptance Criteria:*

* Orthopedic, Urology, and Other Surgical Specialties variable translations:
* Entries >=115 and <=135 are translated to “<=135 mEq/L (Actual Value<Entered Value>)”
* Entries >135 and <=145 are translated to "WNL (Actual Value<Entered Value>)"
* Entries >145 and <=150 are translated to “>145 mEqL (Actual Value<Entered Value>)"

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #56 –* Serum Sodium Lab Result Translation** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Orthopedic, Urology, and Other Surgical Specialties and on each specialty page examine the available variables   * Enter a number >135 and <=145 in the Serum Sodium manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “WNL (Actual value:<entered value>) ” is displayed for Serum Sodium for each specialty |  |
|  | **VP** | Select the Orthopedic, Urology, and Other Surgical Specialties and on each specialty page examine the available variables   * Enter a number >=115 and <=135 in the Serum Sodium manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “<=135 mEq/L (Actual Value<Entered Value>)” is displayed for Serum Sodium for each specialty |  |
|  | **VP** | Select the Orthopedic, Urology, and Other Surgical Specialties and on each specialty page examine the available variables   * Enter a number >145 and <=150 in the Serum Sodium manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “>145 mEqL (Actual Value<Entered Value>)” is displayed for Serum Sodium for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #57 – ASRC-124: PTT Lab Result Manual WNL/Abnormal

**User Story(s):**  ASRC-124: PTT Lab Result Manual WNL/Abnormal

**Description –** As a provider, I want the tool to allow “Presumed WNL" (>=15 and <=35) or "Presumed >35 seconds” (>35 and <=90) for the PTT lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* Vascular variable entry page contains radio buttons to select PTT:
* “Presumed WNL" (>=15 and <=35)
* "Presumed >35 seconds” (>35 and <=90)
* Tool displays entry on the calculation results page.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #57 –* PTT Lab Result Manual WNL/Abnormal** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Vascular specialty page and examine the available variables | Verify that the Vascular specialty contains radio buttons to select PTT values  AND  The PTT variables are in the “Laboratory Values” field group |  |
|  | **VP** | Select the Vascular specialty page and examine the available variables   * Select the “Presumed WNL” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed WNL” is displayed for PTT for the Vascular specialty  AND  Verify that “Presumed WNL” is displayed in the left most column |  |
|  | **VP** | Select the Vascular specialty page and examine the available variables   * Select the “Presumed >35 seconds” radio button * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Presumed >35 seconds” is displayed for PTT for the Vascular specialty |  |
|  | **VP** | Select the Vascular specialty page and examine the available variables   * Don’t select any value for PTT * Select values for all other variables needed for the calculation * Run Calculation | Verify that “Please enter the required value” is displayed for each specialty |  |
|  |  | End of Test Case |  |  |

# TC #58 – ASRC-88: PTT Lab Result Manual Entry Numerical

**User Story(s):**  ASRC-88: PTT Lab Result Manual Entry Numerical

**Description –** As a provider, I want the tool to allow manual entry of the PTT lab result, so that I can still complete the calculation if it could not be retrieved and override a value if I know a more current value.

*Acceptance Criteria:*

* Vascular:
* The calculation result page should display the numerical value if available.
* The Range validation is >=15 and <=90

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #58 –* PTT Lab Result Manual Entry Numerical** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Vascular specialty page and examine the available variables | Verify that the Vascular specialty contains the Manual Numerical Entry box for PTT  AND  The PTT manual entry variable is in the “Laboratory Values” field group |  |
|  | **VP** | Select the Vascular specialty page and examine the available variables   * Select the PTT “Numerical” radio button (do not fill in a value) * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Please enter the required value” is displayed |  |
|  | **VP** | Select the Vascular specialty page and examine the available variables   * Select the PTT “Numerical” radio button * Fill in a value <15 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be greater than or equal to 15” is displayed |  |
|  | **VP** | Select the Vascular specialty page and examine the available variables   * Select the PTT “Numerical” radio button * Fill in a value >90 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the message “Value must be less than or equal to 90” is displayed |  |
|  | **VP** | Select the Vascular specialty page and examine the available variables   * Select the PTT “Numerical” radio button * Fill in a value >=15 and <=90 * Select values for all other variables needed for the calculation * Run Calculation | Verify that the calculation runs successfully. |  |
|  |  | End of Test Case |  |  |

# TC #59 – ASRC-136: PTT Lab Result Translation

**User Story(s):**  ASRC-136: PTT Lab Result Manual Translation

**Description –** As a provider, I want the PTT lab result translated into “WNL (Actual Value<Entered Value>)"or ">35 seconds (Actual Value<Entered Value>)" on the user interface, so that I can easily see the result's effect on the calculation.

*Acceptance Criteria:*

* Vascular variable translations:
* Entries >=15 and <=35 are translated to "WNL (Actual Value<Entered Value>)"
* Entries >35 and <=90 are translated to “>35 seconds (Actual Value<Entered Value>)"

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #59 –* PTT Lab Result Translation** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **VP** | Select the Vascular specialty page and examine the available variables   * Enter a number >=15 and <=35 in the PTT manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “WNL (Actual value:<entered value>) ” is displayed for PTT for the Vascular specialty |  |
|  | **VP** | Select the Vascular specialty page examine the available variables   * Enter a number >35 and <=90 in the PTT manual entry box * Select values for all other variables needed for the calculation * Run Calculation | Verify that “>35 seconds (Actual Value<Entered Value>)" is displayed for PTT for the Vascular specialty |  |
|  |  | End of Test Case |  |  |

# TC #60 – ASRC-107: FY2013 Neurosurgery 30-Day Risk Model

**User Story(s):**  ASRC-107: FY2013 Neurosurgery 30-Day Risk Model

**Description –** As a provider, I want the tool to perform the FY2013 Neurosurgery 30-day risk calculation, so that I know the patient's 30-day mortality risk for the particular procedure.

*Acceptance Criteria:*

* All standard variables and specialty-specific custom variables are considered.
* The result must match the test patient set provided by the NSO, excluding the rows that imply features that have not been implemented.
* The tool clearly delineates which input controls belong to which variable names.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application. Test User has access to the most current NSO Test Patient spreadsheet for the FY2013 Neurosurgery model (The “as tested” version of the spreadsheet will be provided to the Test User.)

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #60 – FY2013 Neurosurgery 30-day Risk Model*** | | | | |
|  | **Step** | * Login to the FTL CPRS * Launch the ASRC Application from the CPRS Tools Menu * Login to the ASRC Application as user 11716 (Radiologist) | * CPRS logs in successfully * ASRC launches and logs in successfully |  |
|  | **VP** | Select the Neurosurgery surgical specialty   * Select the values for all variables needed for the calculation IAW the NSO provided Test Patient spreadsheet for PATIENT 1 (see below) * Either enter weights that do NOT show a 10% weight loss (e.g., both weight entries are set to the same value) or leave the “Weight” entries blank. * Run Calculation | Verify that the Value for calculated risk is “1.2” |  |
|  |  | * CPT = 63741 * Age= 84 * BMI= 28.0 * ASA= 3 * DNR= Yes * Emergency Case= No * Dyspnea= None * Functional= Partially Dependent * Bleeding Disorder= No * Chemotherapy= No * Preop Pneumonia= No * CVA w/ Neuro Deficit= No * CVA w/o Neuro Deficit= No * Preop Disseminated Cancer= No * Hypertension Requiring Meds= Yes * Impaired Sensorium= No * Central Nervous System Tumor= No * Ventilation within 48 hrs= No * Open Wound/Wound Infection= No * Weight Loss >10% 6 mos Preoperative= No * INR= 1 * BUN= 20 * Creatinine= 0.69 * Hematocrit= 42 * Serum Albumin= 4.1 * SGOT= 18 * WBC Count= 8.4 |  |  |
|  | **VP** | Select the Neurosurgery surgical specialty   * Select the values for all variables needed for each of the remaining patients IAW the NSO provided Test Patient spreadsheet for the FY2013 Neurosurgery Model. * Run the Calculation for each model. | Verify the expected “Calculated Risk” result is consistent with the spreadsheet.  (Note: If discrepancies with the test patient data are found, please note the exact test patient number and the nature of the issue.) |  |
|  |  | End of Test Case |  |  |

# TC #61 – ASRC-108: FY2013 Orthopedic 30-Day Risk Model

**User Story(s):**  ASRC-107: FY2013 Orthopedic 30-Day Risk Model

**Description –** As a provider, I want the tool to perform the FY2013 Orthopedic 30-day risk calculation, so that I know the patient's 30-day mortality risk for the particular procedure.

*Acceptance Criteria:*

* All standard variables and specialty-specific custom variables are considered.
* The result must match the test patient set provided by the NSO, excluding the rows that imply features that have not been implemented.
* The tool clearly delineates which input controls belong to which variable names.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application. Test User has access to the most current NSO Test Patient spreadsheet for the FY2013 Orthopedic model (The “as tested” version of the spreadsheet will be provided to the Test User.)

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #61 – FY2013 Orthopedic 30-day Risk Model*** | | | | |
|  | **Step** | * Login to the FTL CPRS * Launch the ASRC Application from the CPRS Tools Menu * Login to the ASRC Application as user 11716 (Radiologist) | * CPRS logs in successfully * ASRC launches and logs in successfully |  |
|  | **VP** | Select the Orthopedic surgical specialty   * Select the values for all variables needed for the calculation IAW the NSO provided Test Patient spreadsheet for PATIENT 1 (see below) * Either enter weights that do NOT show a 10% weight loss (e.g., both weight entries are set to the same value) or leave the “Weight” entries blank. * Run Calculation | Verify that the Value for calculated risk is “7.90” |  |
|  |  | * CPT = 27244 * Age= 95 * BMI= 23.3 * ASA= 4 * DNR= Yes * Emergency Case= No * Preop Ascites= No * Dyspnea= None * Functional= Independent * Wound Class= Clean * CVA w/ Neuro Deficit= No * Dialysis in 2 wks Preop= No * Preop Disseminated Cancer= No * Hemiplegia= No * History of PVD= No * Impaired Sensorium= No * Preop Sepsis= No * Radiotherapy in 90 days Preop= No * Steroid for Chronic Conditions= No * Central Nervous System Tumor= No * Ventilation within 48 hrs= No * Open Wound/Wound Infection= No * Weight Loss >10% 6 mos Preoperative= No * INR= 1 * Creatinine= 0.9 * Hematocrit= 40.9 * Platelets= 197 * Serum Albumin= 3.7 * SGOT= 11.3 * Serum Sodium= 136 * WBC Count= 12.90 |  |  |
|  | **VP** | Select the Orthopedic surgical specialty   * Select the values for all variables needed for each of the remaining patients IAW the NSO provided Test Patient spreadsheet for the FY2013 Orthopedic Model. * Run the Calculation for each model. | Verify the expected “Calculated Risk” result is consistent with the spreadsheet.  (Note: If discrepancies with the test patient data are found, please note the exact test patient number and the nature of the issue.) |  |
|  |  | End of Test Case |  |  |

# TC #62 – ASRC-210: Re-run Calculation with Modified Inputs

**User Story(s):**  ASRC-210: Re-run Calculation with Modified Inputs

**Description –** As a provider, I want to re-run an unsigned calculation with slightly modified input values, so that I can easily test different scenarios.

*Acceptance Criteria:*

* Results page contains a button to return to the variable input, which preserves the current values.
* Clicking the back button does not display any inconsistent data to the user.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #62 –* Re-run Calculation with Modified Inputs** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **Step** | Select the Cardiac specialty page | The selected specialty screen is displayed |  |
|  | **VP** | Select values needed to run the calculation, run the calculation | Verify that the calculation runs successfully |  |
|  | **VP** | Examine the available variables | Verify that the “Return to Variable Input Form” button is under the “Results” field group |  |
|  | **VP** | Select the “Return to Variable Input Form” button | The Variable Input Form displays the variables that were previously entered |  |
|  | **VP** | Repeat steps 2-5 selecting the following specialties one at a time:   * General Surgery * Neurosurgery * Orthopedic * Other Surgical Specialty * Thoracic * Urology * Vascular | Verify same results |  |
|  |  | End of Test Case |  |  |

# TC #63 – ASRC-49: Sign the Risk Calculation

**User Story(s):**  ASRC-63: Sign the Risk Calculation

**Description –** As a provider performing the calculation, I want the tool to ask me to sign the risk calculation, so that the risk calculation will be recorded in the patient's EHR.

*Acceptance Criteria:*

* The tool warns the user before signature that the data will be saved in EHR.
* The tool clearly indicates the patient for the calculation being signed.
* Signature should be via the user's electronic signature code.
* When successfully signed, the tool brings the user to a success page indicating that the calculation has been saved as a note and they may close the browser window.
* Once signed, a calculation may not be altered.
* When the user signs the risk calculation with an invalid signature code an appropriate error message will appear.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #63 –* Sign the Risk Calculation** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **Step** | Select the Cardiac specialty page | The selected specialty screen is displayed |  |
|  | **Step** | Select values needed to run the calculation, run the calculation | Verify that the calculation runs successfully |  |
|  | **VP** | Examine the available variables | Verify that the tool warns the user before signature that the data will be saved in EHR  AND  Verify that the “Sign Calculation” button is under the “Results” field group  AND  You cannot edit the results |  |
|  | **VP** | Sign the risk calculation with an invalid signature code | Verify that an appropriate error message appears |  |
|  | **VP** | Select the “Sign Calculation” button using the appropriate signature code | The tool brings the user to a success page indicating that the calculation has been saved as a note and they may close the browser window |  |
|  | **VP** | Repeat steps 2-6 selecting the following specialties one at a time:   * General Surgery * Neurosurgery * Orthopedic * Other Surgical Specialty * Thoracic * Urology * Vascular | Verify same results |  |
|  |  | End of Test Case |  |  |

# TC #64 – ASRC-50: Save Result as TIU Note

**User Story(s):**  ASRC-50: Save Result as TIU Note

**Description –** As a provider signing the calculation, I want the risk calculation input values and resulting outcomes saved as a note visible on the CPRS notes tab, so that I and others can easily see the calculation in the patient's EHR.

*Acceptance Criteria:*

* The Provider cannot alter the note at all before signature.
* The TIU Note with input values and outcomes is visible in the CPRS Notes tab after signature.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #64 –* Save Result as TIU Note** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **Step** | Select the Cardiac specialty page | The selected specialty screen is displayed |  |
|  | **Step** | Select values needed to run the calculation, run the calculation | Verify that the calculation runs successfully |  |
|  | **Step** | Examine the available variables | Verify that the “Sign Calculation” button is under the “Results” field group |  |
|  | **Step** | Select the “Sign Calculation” button using the appropriate signature code | The tool brings the user to a success page indicating that the calculation has been saved as a note and they may close the browser window |  |
|  | **VP** | Refer to the CPRS “Notes” tab in the Vitals GUI | Verify that the TIU Note with input values and outcomes is visible in the CPRS Notes tab after signature. |  |
|  | **VP** | Try altering the Note in the Vitals GUI | Verify that the provider cannot alter the note after signature |  |
|  | **VP** | Repeat steps 2-7 selecting the following specialties one at a time:   * General Surgery * Neurosurgery * Orthopedic * Other Surgical Specialty * Thoracic * Urology * Vascular | Verify same results |  |
|  |  | End of Test Case |  |  |

# TC #65 – ASRC-109: FY2013 Urology 30-Day Risk Model

**User Story(s):**  ASRC-109: FY2013 Urology 30-Day Risk Model

**Description –** As a provider, I want the tool to perform the FY2013 Urology 30-day risk calculation, so that I know the patient's 30-day mortality risk for the particular procedure.

*Acceptance Criteria:*

* All standard variables and specialty-specific custom variables are considered.
* The result must match the test patient set provided by the NSO.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application. Test User has access to the most current NSO Test Patient spreadsheet for the FY2013 Urology model (The “as tested” version of the spreadsheet will be provided to the Test User.)

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #65 – FY2013 Urology 30-day Risk Model*** | | | | |
|  | **Step** | * Login to the FTL CPRS * Launch the ASRC Application from the CPRS Tools Menu * Login to the ASRC Application as user 11716 (Radiologist) | * CPRS logs in successfully * ASRC launches and logs in successfully |  |
|  | **VP** | Select the Urology surgical specialty   * Select the values for all variables needed for the calculation IAW the NSO provided Test Patient spreadsheet for PATIENT 1 (see below) * Either enter weights that do NOT show a 10% weight loss (e.g., both weight entries are set to the same value) or leave the “Weight” entries blank. * Run Calculation | Verify that the Value for calculated risk is “7.6” |  |
|  |  | * CPT = 52601 * Age= 94 * BMI= 31.7 * ASA= 3 * DNR= Yes * Emergency Case= No * Dyspnea= None * Functional= Partially Dependent * Wound Class= Clean/Contaminated * Preop Ascites= No * Bleeding Disorder= No * CVA with Neuro Deficit= No * Preop Disseminated Cancer= No * Alcohol Use > 2 Drinks Preop= No * Hemiplegia= No * History of CHF= No * History of COPD= No * Hypertension Requiring Medication= No * Impaired Sensorium= No * Preop Sepsis= No * Radiotherapy in 90 days Preop= No * Rest pain/Gangrene= No * Central Nervous System Tumor= No * Weight Loss >10% 6 mos Preoperative= No * INR= 1.22 * Alkaline Phosphate= 78.35 * BUN= 12 * Creatinine= 0.92 * Serum Albumin= 2.7 * SGOT= 20 * Serum Sodium= 136 * WBC Count= 9.6 |  |  |
|  | **VP** | Select the Urology surgical specialty   * Select the values for all variables needed for each of the remaining patients IAW the NSO provided Test Patient spreadsheet for the FY2013 Urology Model. * Run the Calculation for each model. | Verify the expected “Calculated Risk” result is consistent with the spreadsheet.  (Note: If discrepancies with the test patient data are found, please note the exact test patient number and the nature of the issue.) |  |
|  |  | End of Test Case |  |  |

# TC #66 – ASRC-110: FY2013 Vascular 30-Day Risk Model

**User Story(s):**  ASRC-110: FY2013 Vascular 30-Day Risk Model

**Description –** As a provider, I want the tool to perform the FY2013 Vascular 30-day risk calculation, so that I know the patient's 30-day mortality risk for the particular procedure.

*Acceptance Criteria:*

* All standard variables and specialty-specific custom variables are considered.
* The result must match the test patient set provided by the NSO.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application. Test User has access to the most current NSO Test Patient spreadsheet for the FY2013 Vascular model (The “as tested” version of the spreadsheet will be provided to the Test User.)

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #66 – FY2013 Vascular 30-day Risk Model*** | | | | |
|  | **Step** | * Login to the FTL CPRS * Launch the ASRC Application from the CPRS Tools Menu * Login to the ASRC Application as user 11716 (Radiologist) | * CPRS logs in successfully * ASRC launches and logs in successfully |  |
|  | **VP** | Select the Vascular surgical specialty   * Select the values for all variables needed for the calculation IAW the NSO provided Test Patient spreadsheet for PATIENT 1 (see below) * Either enter weights that do NOT show a 10% weight loss (e.g., both weight entries are set to the same value) or leave the “Weight” entries blank. * Run Calculation | Verify that the Value for calculated risk is “6.7” |  |
|  |  | * CPT = 44320 * Age= 95 * BMI= 21.0 * ASA= 3 * DNR= Yes * Emergency Case= Yes * Diabetes= None * Dyspnea= None * Functional= Independent * Wound Class= Clean/Contaminated * Preop Ascites= No * Chemotherapy= No * Preoperative Pneumonia= No * Dialysis in 2 wks Preoperative= No * Preop Disseminated Cancer= No * History of CHF= No * History of COPD= No * Impaired Sensorium= No * Preop Sepsis= No * Weight Loss >10% 6 mos Preoperative= No * INR= 1.1 * Alkaline Phosphate= 59 * Bilirubin= 0.7 * BUN= 19 * Creatinine= 1.0 * Serum Albumin= 3.6 * Platelets= 205 * Partial Thromboplastin Time > 35 Seconds= 32.3 * SGOT= 10 * WBC Count= 8.44 |  |  |
|  | **VP** | Select the Vascular surgical specialty   * Select the values for all variables needed for each of the remaining patients IAW the NSO provided Test Patient spreadsheet for the FY2013 Vascular Model. * Run the Calculation for each model. | Verify the expected “Calculated Risk” result is consistent with the spreadsheet.  (Note: If discrepancies with the test patient data are found, please note the exact test patient number and the nature of the issue.) |  |
|  |  | End of Test Case |  |  |

# TC #67 – ASRC-112: FY2013 Other Surgical Specialty 30-Day Risk Model

**User Story(s):**  ASRC-112: FY2013 Other Surgical Specialty 30-Day Risk Model

**Description –** As a provider, I want the tool to perform the FY2013 Other Surgical Specialty 30-day risk calculation, so that I know the patient's 30-day mortality risk for the particular procedure.

*Acceptance Criteria:*

* All standard variables and specialty-specific custom variables are considered.
* The result must match the test patient set provided by the NSO.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application. Test User has access to the most current NSO Test Patient spreadsheet for the FY2013 Other Surgical Specialty model (The “as tested” version of the spreadsheet will be provided to the Test User.)

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #67 – FY2013 Other Surgical Specialty 30-day Risk Model*** | | | | |
|  | **Step** | * Login to the FTL CPRS * Launch the ASRC Application from the CPRS Tools Menu * Login to the ASRC Application as user 11716 (Radiologist) | * CPRS logs in successfully * ASRC launches and logs in successfully |  |
|  | **VP** | Select the Other Surgical Specialty surgical specialty   * Select the values for all variables needed for the calculation IAW the NSO provided Test Patient spreadsheet for PATIENT 1 (see below) * Either enter weights that do NOT show a 10% weight loss (e.g., both weight entries are set to the same value) or leave the “Weight” entries blank. * Run Calculation | Verify that the Value for calculated risk is “.3” |  |
|  |  | * CPT = 47600 * Surgical Specialty= General Surgery * Age= 56 * BMI= 30.2 * ASA= 2 * DNR= No * Emergency Case= No * Dyspnea= No * Functional= Independent * Preop Ascites= No * Intraop Ascites= No * Bleeding Disorder= No * Preoperative Pneumonia= No * Dialysis in 2 wks Preoperative= No * Preop Disseminated Cancer= No * Intraop Disseminated Cancer= No * History of CHF= No * History of COPD= No * History of PVD= No * Hypertension Requiring Medication= No * Impaired Sensorium= No * Preop Sepsis= No * Radiotherapy in 90 Days Preop= No * Preop Renal Failure= No * Steroid for Chronic Conditions= No * Preop Transfusion > 4 Units PRBCs= No * Would Class= Clean/Contaminated * Weight Loss >10% 6 mos Preoperative= No * INR= 1.1 * Alkaline Phosphate= 48 * Bilirubin= 1.2 * BUN= 6 * Creatinine= 0.9 * Hematocrit= 38.5 * Platelets= 182 * Serum Albumin= 141 * WBC Count= 5.3 |  |  |
|  | **VP** | Select the Other Surgical Specialty surgical specialty   * Select the values for all variables needed for each of the remaining patients IAW the NSO provided Test Patient spreadsheet for the FY2013 Other Surgical Specialty Model. * Run the Calculation for each model. | Verify the expected “Calculated Risk” result is consistent with the spreadsheet.  (Note: If discrepancies with the test patient data are found, please note the exact test patient number and the nature of the issue.) |  |
|  |  | End of Test Case |  |  |

# TC #68 – ASRC-111: FY2013 Cardiac CABG 30-Day Risk Model

**User Story(s):**  ASRC-111: FY2013 Cardiac CABG 30-Day Risk Model

**Description –** As a provider, I want the tool to perform the FY2013 Cardiac CABG 30-day risk calculation, so that I know the patient's 30-day mortality risk for the particular procedure.

*Acceptance Criteria:*

* All standard variables and specialty-specific custom variables are considered.
* The result must match the test patient set provided by the NSO.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application. Test User has access to the most current NSO Test Patient spreadsheet for the FY2013 Cardiac CABG model (The “as tested” version of the spreadsheet will be provided to the Test User.)

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #68 – FY2013 Cardiac CABG 30-day Risk Model*** | | | | |
|  | **Step** | * Login to the FTL CPRS * Launch the ASRC Application from the CPRS Tools Menu * Login to the ASRC Application as user 11716 (Radiologist) | * CPRS logs in successfully * ASRC launches and logs in successfully |  |
|  | **VP** | Select the Cardiac CABG surgical specialty   * Select the values for all variables needed for the calculation IAW the NSO provided Test Patient spreadsheet for PATIENT 1 (see below) * Either enter weights that do NOT show a 10% weight loss (e.g., both weight entries are set to the same value) or leave the “Weight” entries blank. * Run Calculation | Verify that the Value for calculated risk is “0.3” |  |
|  |  | * Age= 83 * Gender= Male * BMI= 22.20 * Creatinine= 0.9 * Canadian Cardiovascular Society Class (Angina)= 1 * ASA= 1 * Cardiomegaly= No * Cerebral Vascular Disease= No * Congestive Heart Failure (CHF) Class= 1 * Diabetes= None * Employment Status= Not Employed * Functional Status= Independent * Homeless= No * LV Contraction Grade= I * Peripheral Vascular Disease= No * Preoperative IABP Use= No * Prior Heart Surgery= No * Resting ST Depression= No * History of COPD= No |  |  |
|  | **VP** | Select the Cardiac CABG surgical specialty   * Select the values for all variables needed for each of the remaining patients IAW the NSO provided Test Patient spreadsheet for the FY2013 Cardiac CABG Model. * Run the Calculation for each model. | Verify the expected “Calculated Risk” result is consistent with the spreadsheet.  (Note: If discrepancies with the test patient data are found, please note the exact test patient number and the nature of the issue.) |  |
|  |  | End of Test Case |  |  |

1. **TC #69 – ASRC-238: FY2013 Cardiac Valve/Other 30-Day Risk Model**

**User Story(s):**  ASRC-238: FY2013 Cardiac Valve/Other CABG 30-Day Risk Model

**Description –** As a provider, I want the tool to perform the FY2013 Cardiac Valve/Other 30-day risk calculation, so that I know the patient's 30-day mortality risk for the particular procedure.

*Acceptance Criteria:*

* All standard variables and specialty-specific custom variables are considered.
* The result must match the test patient set provided by the NSO.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application. Test User has access to the most current NSO Test Patient spreadsheet for the FY2013 Cardiac Valve/Other model (The “as tested” version of the spreadsheet will be provided to the Test User.)

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #69 – FY2013 Cardiac Valve/Other 30-day Risk Model*** | | | | |
|  | **Step** | * Login to the FTL CPRS * Launch the ASRC Application from the CPRS Tools Menu * Login to the ASRC Application as user 11716 (Radiologist) | * CPRS logs in successfully * ASRC launches and logs in successfully |  |
|  | **VP** | Select the Cardiac Valve/Other surgical specialty   * Select the values for all variables needed for the calculation IAW the NSO provided Test Patient spreadsheet for PATIENT 1 (see below) * Either enter weights that do NOT show a 10% weight loss (e.g., both weight entries are set to the same value) or leave the “Weight” entries blank. * Run Calculation | Verify that the Value for calculated risk is “0.5” |  |
|  |  | * Mitral Valve Replacement alone= No * Mitral Valve Replacement plus CABG= No * Aortic Valve Replacement plus CABG= No * Great Vessel Repair= No * Other Valve Replacement other than GV and AV and MVR= No * Age= 83 * BMI=32.2 * Creatinine= 0.91 * Canadian Cardiovascular Society Class (Angina)= 1 * ASA= 4 * Cardiomegaly= No * Congestive Heart Failure (CHF) Class= 1 * Coronary Artery Disease= None * Diabetes= None * Employement Status= Not Employed * Functional Status= Independent * Hypertension= No * Mitral Regurgitation= None/Trivial * Propiabp= No * PCI= No * Prior Heart Surgery= No * Priority of Surgery= Elective * Pulmonary Rales= No * Smoking Status= Never |  |  |
|  | **VP** | Select the Cardiac Valve/Other surgical specialty   * Select the values for all variables needed for each of the remaining patients IAW the NSO provided Test Patient spreadsheet for the FY2013 Cardiac Valve/Other Model. * Run the Calculation for each model. | Verify the expected “Calculated Risk” result is consistent with the spreadsheet.  (Note: If discrepancies with the test patient data are found, please note the exact test patient number and the nature of the issue.) |  |
|  |  | End of Test Case |  |  |

# TC #70 – ASRC-266: Put the Procedure Value at the top of the results screen list

**User Story(s):**  ASRC-266: Put the Procedure Value at the top of the results screen list

**Description –** As a provider, I want the selected Procedure value, if available, to be at the top of the results screen's value list, so that I can more easily see what procedure was used in the calculation.

*Acceptance Criteria:*

* The Planned Procedure values appear at the top of the input values list. (This includes a CPT code for non-cardiac and the "Valve/Other" procedure for Cardiac Valve.)

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #70 –* Put the Procedure Value at the top of the results screen list** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **Step** | Access the Cardiac Valve Surgical Specialty | The selected specialty variable entry page is displayed |  |
|  | **Step** | Fill in the variables required to run a calculation and run the calculation | The selected specialty results page is displayed |  |
|  | **VP** | Examine the results page | Validate that the selected procedure is displayed at the top of the variable “Calculation Inputs” section |  |
|  | **VP** | Repeat steps 2 and 3 for each of the following Surgical Specialties:   * General Surgery * Neurosurgery * Orthopedic * Other Surgical Specialty * Thoracic * Urology * Vascular | Validate that the selected procedure is displayed at the top of the variable “Calculation Inputs” section for each specialty. |  |
|  |  | End of Test Case |  |  |

# TC #71 – ASRC-265: Put the Procedure Value at the top of the TIU Note

**User Story(s):**  ASRC-265: Put the Procedure Value at the top of the TIU Note

**Description –** As a provider, I want the selected Procedure value, if available, to be at the top of the generated risk calculation note, so that I can easily scan multiple notes to find one for a particular procedure.

*Acceptance Criteria:*

* The Procedure value immediately follows the specialty value in the note. (This includes a CPT code for non-cardiac and the "Valve/Other" procedure for Cardiac Valve.)

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #71 –* Put the Procedure Value at the top of the TIU Note** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **Step** | Access the Cardiac Valve Surgical Specialty | The selected specialty variable entry page is displayed |  |
|  | **Step** | Fill in the variables required to run a calculation and run the calculation | The selected specialty results page is displayed |  |
|  | **Step** | Sign the calculation  (If you logged into CPRS as “CPRS1234” user, use the signature code: PROGONE) | “Calculation Results Saved Successfully” is displayed |  |
|  | **VP** | In CPRS select the “Notes” page and examine the signed note from step 4 | Validate that the selected procedure is displayed at the top of the Note under the “Specialty” and the procedure is wrapped (if a long procedure name was selected) |  |
|  | **VP** | Repeat steps 2 - 4 for each of the following Surgical Specialties:   * General Surgery * Neurosurgery * Orthopedic * Other Surgical Specialty * Thoracic * Urology * Vascular | Validate that the selected procedure is displayed at the top of the Note under the “Specialty” and the procedure is wrapped (if a long procedure name was selected) |  |
|  |  | End of Test Case |  |  |

# TC #72 – ASRC-264: Risk Outcomes at the top of the TIU Note

**User Story(s):**  ASRC-264: Risk Outcomes at the top of the TIU Note

**Description –** As a provider, I want the calculated outcomes to be near the top of the generated risk calculation note, so that I can easily see the outcomes without scrolling down.

*Acceptance Criteria:*

* The calculated outcomes immediately follow the specialty & procedure. (They precede the input values.)

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #72 –* Risk Outcomes at the top of the TIU Note** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **Step** | Access the Cardiac CABG Surgical Specialty | The selected specialty variable entry page is displayed |  |
|  | **Step** | Fill in the variables required to run a calculation and run the calculation | The selected specialty results page is displayed |  |
|  | **Step** | Sign the calculation  (If you logged into CPRS as “CPRS1234” user, use the signature code: PROGONE) | “Calculation Results Saved Successfully” is displayed  NOTE: Close this page |  |
|  | **VP** | In CPRS select the “Notes” page and examine the signed note from step 4 | Validate that the calculated result is displayed at the top of the Note under the “Procedure” |  |
|  | **VP** | Repeat steps 2 - 4 for each of the following Surgical Specialties:   * Cardiac Valve * General Surgery * Neurosurgery * Orthopedic * Other Surgical Specialty * Thoracic * Urology * Vascular | Validate that the calculated result is displayed at the top of the Note under the “Procedure”  NOTE: The ASRC Application will need to be launched to run each of the listed specialties once the calculation was signed. |  |
|  |  | End of Test Case |  |  |

# TC #73 – ASRC-269: BMI Upper Range

**User Story(s):**  ASRC-269: BMI Upper Range

**Description –** As a provider, I want the tool to reject any BMI value greater than 150, so that I cannot accidentally enter an unrealistic value.

*Acceptance Criteria:*

* The BMI value must be less than or equal to 150

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #73 –* BMI Upper Range** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **Step** | Select the General Surgery specialty | The General Surgery specialty variable input page is displayed |  |
|  | **VP** | In the BMI value entry field enter 150 and click “Run Calculation” | Validate that the value was accepted (no error message was displayed) |  |
|  | **VP** | In the BMI value entry field enter 151 and click “Run Calculation” | Validate that the value was Not accepted and an appropriate error message was displayed |  |
|  |  | End of Test Case |  |  |

# TC #74 – ASRC-199: Authenticate Administrative Users

**User Story(s):**  ASRC-199: Authenticate Administrative Users

**Description –** As an ASRC Administrator, I want to login to the tool without using CPRS, so that I can administer the tool even if I don't have CPRS access.

*Acceptance Criteria:*

* Administrators authenticate to the tool using a separate ASRC-specific username/password pair (not related to their VistA account).
* At least one administrative account exists for testing.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #74 –* Authenticate Administrative Users** | | | | |
|  | **Step** | Access the ASRC Administrator login page  (NOTE 1: In the FTL, open Internet Explorer and go to <http://asrcdev.vaftl.us/srcalc/>)  (NOTE2: Type this URL into the browser running in the FTL) | The ASRC Administrator login page is displayed |  |
|  | **VP** | Login as an ASRC Administrator using the following information:  Username: adminone  Password: Admin1  (NOTE: Make sure the ASRC tool is not already logged in as a regular user) | Validate that the ASRC Administration page is displayed |  |
|  |  | End of Test Case |  |  |

# TC #75 – ASRC-141: Modify Checkbox Custom Variables

**User Story(s):**  ASRC-141: Modify Checkbox Custom Variables

**Description –** As an ASRC Administrator, I want to modify checkbox custom variables, so that I can update the risk models without development effort.

*Acceptance Criteria:*

* Edit page displays the variable's key for reference.
* Edit page displays the risk models that currently use the variable for reference.
* User can modify the display name, up to 80 characters long, consisting of valid characters.
* User can modify the field definition (help text), up to 4000 characters.
* User can modify the variable group.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Administrator Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #75 –* Modify Checkbox Custom Variables** | | | | |
|  | **Step** | Access the ASRC Administrator login page  (NOTE 1: In the FTL, open Internet Explorer and go to <http://asrcdev.vaftl.us/srcalc/>)  (NOTE2: Type this URL into the browser running in the FTL) | The ASRC Administrator login page is displayed |  |
|  | **Step** | Login as an ASRC Administrator using the following information:  Username: adminone  Password: Admin1  (NOTE: Make sure the ASRC tool is not already logged in as a regular user) | The ASRC Administration page is displayed |  |
|  | **VP** | Select Edit for the DNR Checkbox variable | Validate that the DNR Edit Checkbox variable page is displayed |  |
|  | **Step** | Modify the Display text by typing in a new name up to 80 characters in length | The entered text is displayed in the Display Text entry box |  |
|  | **Step** | Modify the help text by entering text up to 4000 characters in length | The entered text is displayed in the Help Text entry box |  |
|  | **Step** | Select a different Group for the DNR  (NOTE: DNR is supposed to be in Demographics. ) | The selected Group is displayed in the Group entry box |  |
|  | **VP** | Click “Save Changes” | Validate that the new Display Text for DNR in the variable selection page |  |
|  | **VP** | Click “Edit” for the new variable name | Validate that the Help Text entered earlier is displayed  (The display of the Help Text in the ASRC tool has not been implemented as of Sprint 7) |  |
|  | **Step** | Close the Administration Page by closing the browser | The Administration page is closed |  |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) | The ASRC application displays and login was successful |  |
|  | **Step** | Select General Surgery | The General Surgery variable input page is displayed |  |
|  | **VP** | Examine the variable input page | Validate that the new display text is displayed and is in the BMI group |  |
|  | **Step** | Close the ASRC application | The ASRC application is no longer displayed |  |
|  | **Step** | Access the ASRC Administrator login page  (NOTE 1: In the FTL, open Internet Explorer and go to <http://asrcdev.vaftl.us/srcalc/>)  (NOTE2: Type this URL into the browser running in the FTL) | The ASRC Administrator login page is displayed |  |
|  | **Step** | Login as an ASRC Administrator using the following information:  Username: adminone  Password: Admin1  (NOTE: Make sure the ASRC tool is not already logged in as a regular user) | The ASRC Administration page is displayed |  |
|  | **Step** | Select “Edit” for the Variable Name display text entered in Step 2 | The variable edit page is displayed |  |
|  | **Step** | Set the Display Text to DNR | DNR is displayed in the Display Text entry box |  |
|  | **Step** | Clear the Help Text entry box | The Help Text entry box is blank |  |
|  | **Step** | Set the Group to “Demographics” | Demographics is displayed in the Group entry box |  |
|  | **Step** | Click “Save Changes” | DNR is displayed in the Variable list.  (NOTE: Steps 7-11 can be executed again to see that DNR is correctly displayed) |  |
|  |  | End of Test Case |  |  |

# TC #76 – ASRC-51: Save Result as Discrete VistA Data

**User Story(s):**  ASRC-51: Save Result as Discrete VistA Data

**Description –** As a provider signing the calculation, I want the tool to save the calculation results (including associated patient, CPT code, date and time of calculation, user, and actual outcome results) to VistA surgery as discrete data, so that other packages and systems (e.g., CDW) can access the data.

*Acceptance Criteria:*

* After signing the calculation, the SURGICAL RISK CALCULATIONS FILE (#136.1) contains an entry containing the associated patient, CPT code, date and time of calculation, user, and actual outcome results from the calculation as discrete data.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab, ASRC Application, and Putty (an application that allows VistA to be run similar to Attachmate Reflections).

* To add Putty to the desktop access the FTL S:/i824\_asrc folder and double click on the “Setup\_Workstation” file.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #76 –* Save Result as Discrete VistA Data** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist) and select a patient without any ASRC generated TIU notes | The ASRC application displays and login was successful |  |
|  | **Step** | Access the Cardiac CABG Surgical Specialty | The selected specialty variable entry page is displayed |  |
|  | **Step** | Fill in the variables required to run a calculation and run the calculation | The selected specialty results page is displayed |  |
|  | **Step** | Sign the calculation  (If you logged into CPRS as “CPRS1234” user, use the signature code: PROGONE) | “Calculation Results Saved Successfully” is displayed  NOTE: Close this page |  |
|  | **Step** | Access UAT VistA through the “Putty” application signing in as   * Access code: cprs1234 * Verify code: cprs4321$ | VistA login is successful |  |
|  | **Step** | Access VA Fileman | The VA Fileman menu is displayed |  |
|  | **VP** | Select Inquire and enter SURGICAL RISK CALCULATIONS at the “OUTPUT FROM WHAT FILE:” prompt | The “Select SURCIAL RISK CALCULATIONS PATIENT” prompt is displayed |  |
|  | **Step** | Enter the patient name selected in CPRS at the “Select SURCIAL RISK CALCULATIONS PATIENT” prompt and click return at the “ANOTHER ONE:” prompt | The “STANDARD CAPTIONED OUTPUT” prompt is displayed |  |
|  | **VP** | Hit return to accept the default at the “STANDARD CAPTIONED OUTPUT” prompt and then select “B” at the Include COMPUTED fields: (N/Y/R/B):” prompt | Validate that the following information from signed calculation is displayed:   * associated patient, * CPT code, * date and time of calculation, * user, and * actual outcome results |  |
|  |  | End of Test Case |  |  |

# TC #77 – ASRC-224: Add Checkbox Custom Variables

**User Story(s):**  ASRC-224: Add Checkbox Custom Variables

**Description –** As an ASRC Administrator, I want to add checkbox custom variables, so that I can update the risk models without development effort.

*Acceptance Criteria:*

* A link to add a new Checkbox variable is available at the bottom of the edit variable page.
* User can set the variable (Internal) key
* User can add the display name, up to 80 characters long, consisting of valid characters.
* User can add the field definition (help text).
* User can add the new variable to a variable group.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Administrator Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #77 – Add Checkbox Custom Variables*** | | | | |
|  | **Step** | Login as an ASRC Administrator using the following information:  Username: adminone  Password: Admin1  (NOTE 1: Make sure the ASRC tool is not already logged in as a regular user)  NOTE 2: Use Internet Explorer in the FTL. Enter this URL: <http://asrcuat.vaftl.us/srcalc/admin>) | The ASRC Admin page is displayed |  |
|  | **VP** | Click the Add New : “Checkbox” button at the bottom of the Admin page | Validate that the Add New Checkbox admin page is displayed |  |
|  | **VP** | Enter an Internal Key | Validate that the entered Internal Key is displayed |  |
|  | **VP** | Enter Display Text | The entered Display Name is displayed  (NOTE: the display text can handle up to 80 characters) |  |
|  | **VP** | Enter “Help Text” | Validate that the entered Help Text is displayed  (NOTE: The help text can handle up to 4000 characters) |  |
|  | **VP** | Select variable Group | Validate that the selected Group is displayed |  |
|  | **VP** | Select VistA Value – N/A | Validate that “N/A” displays (no other choices are available for Checkbox variables) |  |
|  | **VP** | Select Save Changes | Validate that the save was successful (the new checkbox variable is displayed on the main Administration page)  (NOTE: if there were any validation errors (e.g., display name was greater than 80 characters) an appropriate error message displays.) |  |
|  | **VP** | Select Edit for the new checkbox variable created in this test case | Validate all of the previously entered and saved data displays |  |
|  |  | End of Test Case |  |  |

# TC #78 – ASRC-142: Modify Radio Button Custom Variables

**User Story(s):**  ASRC-142: Modify Radio Button Custom Variables

**Description –** As an ASRC Administrator, I want to add, modify, and remove radio button custom variables, so that I can update the risk models without development effort.

*Acceptance Criteria:*

* Edit page displays the variable's key for reference.
* Edit page displays the risk models that currently use the variable for reference.
* User can set the "VistA Retriever" used for the variables, if any.
* User can modify the display name, up to 80 characters long, consisting of valid characters.
* User can modify the field definition (help text), up to 4000 characters.
* User can modify the variable group.
* User can add, modify, and remove available options. Option names are up to 80 characters long, consisting of valid Display Name characters.
* User can change the displayed order of options.
* User can add up to 20 options.
* Once the limit is met, the tool displays a message stating that the maximum options are configured.
* Note: See the Admin UI Mockups on Sharepoint for UI mockups.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Administrator Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #78 –* Modify Radio Button Custom Variables** | | | | |
|  | **Step** | Access the ASRC Administrator login page  (NOTE 1: In the FTL, open Internet Explorer and go to <http://asrcdev.vaftl.us/srcalc/>)  (NOTE2: Type this URL into the browser running in the FTL) | The ASRC Administrator login page is displayed |  |
|  | **Step** | Login as an ASRC Administrator using the following information:  Username: adminone  Password: Admin1  (NOTE: Make sure the ASRC tool is not already logged in as a regular user) | The ASRC Administration page is displayed |  |
|  | **VP** | Select Edit for a Test Variable (Radio Button)  (NOTE: If a test Radio Button variable does not exist then create one by using the “Add” feature at the bottom of the ASRC Administration page. ) | Validate that the Test variable Edit page is displayed |  |
|  | **Step** | Modify the Display text by typing in a new name up to 80 characters in length | The entered text is displayed in the Display Text entry box |  |
|  | **Step** | Modify the help text by entering text up to 4000 characters in length | The entered text is displayed in the Help Text entry box |  |
|  | **Step** | Select a different Group | The selected Group is displayed in the Group entry box |  |
|  | **VP** | Modify an Option by changing an Option name | The entered text is displayed in the Option entry box |  |
|  | **VP** | Click “Save Changes” | Validate that the new Display Text for the Test Variable is shown on the variable selection page |  |
|  | **VP** | Click “Edit” for the new variable name | Validate all of the previously entered and saved data displays |  |
|  | **Step** | Close the Administration Page by closing the browser | The Administration page is closed |  |
|  |  | End of Test Case |  |  |

# TC #79 – ASRC-225: Add Radio Button Custom Variables

**User Story(s):**  ASRC-225: Add Radio Button Custom Variables

**Description –** As an ASRC Administrator, I want to add radio button custom variables, so that I can update the risk models without development effort.

*Acceptance Criteria:*

* A link to add a new Radio Button variable is available at the bottom of the edit variable page.
* User can set a unique variable key
* User can set the "VistA Retriever" used for the variables, if any.
* User can add the display name, up to 80 characters long, consisting of [valid characters](https://warriortechnology.sharepoint.com/sites/Programs/asrc/Shared%20Documents/Testing/valid_characters.txt).
* User can add the field definition (help text).
* User can modify the variable group.
* User can add available options. Option names are up to 80 characters long, consisting of [valid Display Name characters](https://warriortechnology.sharepoint.com/sites/Programs/asrc/Shared%20Documents/Testing/valid_characters.txt).
* User can specify the displayed order of options.
* User can add up to 20 options.
* Once the limit is met, the tool displays a message stating that the maximum options are configured.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Administrator Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #79 – Add Radio Button Custom Variables*** | | | | |
|  | **Step** | Login as an ASRC Administrator using the following information:  Username: adminone  Password: Admin1  (NOTE 1: Make sure the ASRC tool is not already logged in as a regular user)  (NOTE 2: Use Internet Explorer in the FTL. Enter this URL: <http://asrcuat.vaftl.us/srcalc/admin>) | The ASRC Admin page is displayed |  |
|  | **VP** | Click the Add New : “Radio” button at the bottom of the Admin page | Validate that the Add New Radio Button admin page is displayed |  |
|  | **VP** | Enter an Internal Key | Validate that the entered Internal Key is displayed |  |
|  | **VP** | Enter Display Text | The entered Display Name is displayed  (NOTE: the display text can handle up to 80 characters) |  |
|  | **VP** | Enter “Help Text” | Validate that the entered Help Text is displayed  (NOTE: The help text can handle up to 4000 characters) |  |
|  | **VP** | Select variable Group | Validate that the selected Group is displayed |  |
|  | **VP** | Select VistA Value – N/A | Validate that “N/A” displays (only N/A and Gender are available for Radio Buttons) |  |
|  | **VP** | Click “Add Another” below the Options entry boxes | Validate that another Radio Button Option box displays  (NOTE 1: An appropriate warning displays when the options reach 21)  (NOTE 2: An appropriate error message is displayed if the option length exceeds 80 characters) |  |
|  | **VP** | Select Save Changes | Validate that the save was successful (the new Radio Button variable is displayed on the main Administration page)  (NOTE: if there were any validation errors (e.g., display name was greater than 80 characters) an appropriate error message displays.) |  |
|  | **VP** | Select Edit for the new Radio Button variable created in this test case | Validate all of the previously entered and saved data displays |  |
|  |  | End of Test Case |  |  |

# TC #80 – ASRC-229: Modify Discrete Numerical Variables

**User Story(s):**  ASRC-229: Modify Discrete Numerical Variables

**Description –** As an ASRC Administrator, I want to modify discrete numerical variables, so that I can update the risk models without development effort.

*Acceptance Criteria:*

* Edit page displays the variable's key for reference.
* Edit page displays the risk models that currently use the variable for reference.
* Edit page indicates whether the variable is automatically retrieved from VistA.
* User can modify the display name, up to 80 characters long, consisting of valid characters.
* User can modify the field definition (help text), up to 4000 characters.
* User can modify the variable group.
* User can modify the displayed units, up to 40 characters long, consisting of valid Display Name characters.
* User can modify the valid range.
* User can add, modify, and remove available categories.
* Up to 10 categories may be defined.
* Category names are up to 80 characters long, consisting of valid Display Name characters.
* User can modify the categories' ranges.
* The tool displays a message above the categories indicating that it will automatically sort them.
* Note: See the Admin UI Mockups on Sharepoint for UI mockups.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Administrator Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #80 –* Modify Discrete Numerical Custom Variables** | | | | |
|  | **Step** | Access the ASRC Administrator login page  (NOTE 1: In the FTL, open Internet Explorer and go to <http://asrcdev.vaftl.us/srcalc/>)  (NOTE2: Type this URL into the browser running in the FTL) | The ASRC Administrator login page is displayed |  |
|  | **Step** | Login as an ASRC Administrator using the following information:  Username: adminone  Password: Admin1  (NOTE: Make sure the ASRC tool is not already logged in as a regular user) | The ASRC Administration page is displayed |  |
|  | **VP** | Select Edit for a Test Variable (Discrete Numerical)  (NOTE: If a test Discrete Numerical variable does not exist then create one by using the “Add” feature at the bottom of the ASRC Administration page.) | Validate that the Test variable Edit page is displayed |  |
|  | **Step** | Modify the Display text by typing in a new name up to 80 characters in length | The entered text is displayed in the Display Text entry box |  |
|  | **Step** | Modify the help text by entering text up to 4000 characters in length | The entered text is displayed in the Help Text entry box |  |
|  | **Step** | Select a different Group | The selected Group is displayed in the Group entry box |  |
|  | **VP** | Modify an Category by changing an Option name | The entered text is displayed in the Category entry box |  |
|  | **VP** | Modify Units by changing the Units entry | The entered text is displayed in the Units entry box |  |
|  | **VP** | Click “Save Changes” | Validate that the new Display Text for the Test Variable is shown on the variable selection page |  |
|  | **VP** | Click “Edit” for the new variable name | Validate all of the previously entered and saved data displays |  |
|  | **Step** | Close the Administration Page by closing the browser | The Administration page is closed |  |
|  |  | End of Test Case |  |  |

# TC #81 – ASRC-230: Add Discrete Numerical Variables

**User Story(s):**  ASRC-230: Add Discrete Numerical Variables

**Description –** As an ASRC Administrator, I want to add discrete numerical custom variables, so that I can update the risk models without development effort.

*Acceptance Criteria:*

* A link to add a new Discrete Numerical variable is available at the bottom of the edit variable page.
* User can set the variable key
* Edit page allows indication of whether the variable is automatically retrieved from VistA.
* User can add the display name, up to 80 characters long, consisting of valid characters.
* User can add the field definition (help text).
* User can add the variable group.
* User can add the displayed units, up to 40 characters long, consisting of [valid Display Name characters.
* User can add the valid range.
* User can add up to 10 categories. Category names are up to 80 characters long, consisting of [valid Display Name characters.
* User can add the categories' ranges.
* The tool displays a message above the categories indicating that it will automatically sort them.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Administrator Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #81 –* Add Discrete Numerical Variables** | | | | |
|  | **Step** | Login as an ASRC Administrator using the following information:  Username: adminone  Password: Admin1  (NOTE 1: Make sure the ASRC tool is not already logged in as a regular user)  (NOTE 2: Use Internet Explorer in the FTL. Enter this URL: <http://asrcuat.vaftl.us/srcalc/admin>) | The ASRC Admin page is displayed |  |
|  | **VP** | Click the Add New : “Discrete Numerical” button at the bottom of the Admin page | Validate that the Add New Discrete Numerical admin page is displayed |  |
|  | **VP** | Enter an Internal Key | Validate that the entered Internal Key is displayed |  |
|  | **VP** | Enter Display Text | The entered Display Name is displayed  (NOTE: the display text can handle up to 80 characters) |  |
|  | **VP** | Enter “Help Text” | Validate that the entered Help Text is displayed  (NOTE: The help text can handle up to 4000 characters) |  |
|  | **VP** | Select variable Group | Validate that the selected Group is displayed |  |
|  | **VP** | Select VistA Value – N/A | Validate that available discrete variables display and that N/A displays |  |
|  | **VP** | Click “Add Another” below the Categories entry boxes | Validate that another Discrete Numerical category box displays  (NOTE 1: An appropriate warning displays when the options reach 21)  (NOTE 2: An appropriate error message is displayed if the option length exceeds 80 characters) |  |
|  | **VP** | Enter the Upper bounds of each Category  (NOTE: The Upper bound of each category is the Lower bounds of the following category) | The entered Upper bounds display for each category |  |
|  | **VP** | Select Save Changes | Validate that the save was successful (the new Radio Button variable is displayed on the main Administration page)  (NOTE: if there were any validation errors (e.g., display name was greater than 80 characters) an appropriate error message displays.) |  |
|  | **VP** | Select Edit for the new Radio Button variable created in this test case | Validate all of the previously entered and saved data displays |  |
|  |  | End of Test Case |  |  |

# TC #82 – ASRC-236: Warn the user if overwriting an in-progress calculation

**User Story(s):**  ASRC-236: Warn the user if overwriting an in-progress calculation

**Description –** As a provider performing a calculation and starting a new calculation on a different patient, I want the tool to warn me that proceeding will lose current work and overwrite with the information for the new patient, so that the provider can choose not to start the new calculation and lose work.

*Acceptance Criteria:*

* User is warned if a calculation will be overwritten with the info for a new patient if the provider selects a new patient while the calculator is already open with a different one.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #82 – Warn the user if overwriting an in-progress calculation*** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist)  (NOTE: Select TWENTYSEVEN,PATIENT in CPRS before launching ASRC) | The ASRC application displays and login was successful |  |
|  | **VP** | In CPRS select another patient and launch the ASRC tool again. | Validate that this warning displays:  “Calculation in progress for TWENTYSEVEN,PATIENT. Starting a new calculation will overwrite the in-progress calculation.  If you do not wish to start a new calculation, close this browser window or tab.  Click below to start a new calculation  Start New Calculation” |  |
|  | **VP** | Click Start New Calculation | Validate that this warning displays:  “All other calculations are no longer valid and should be closed” |  |
|  | **VP** | Click “ok” | ASRC Surgical Specialty selection window displays |  |
|  |  | End of Test Case |  |  |

# TC #83 – ASRC-56: VistA Request for Surgery Display

**User Story(s):**  ASRC-56: VistA Request for Surgery Display

**Description –** As a licensed provider requesting surgery, I want VistA Surgery to display the most recent risk calculation results for the particular patient and procedure, so that I can include mortality risk in my decision whether to perform the surgery.

*Acceptance Criteria:*

* If VistA Surgery has a risk calculation matching the patient and Planned Principal Procedure Code within the past 60 days, it will display that risk calculation immediately after entering the procedure code.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab, ASRC Application, and VistA.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #83 – VistA Request for Surgery Display*** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist)  (NOTE: Select TWENTYSEVEN,PATIENT in CPRS before launching ASRC) | The ASRC application displays and login was successful |  |
|  | **Step** | Select General Surgery specialty | The General Surgery specialty page is displayed |  |
|  | **Step** | Fill out all required entries and run the calculation  CPT Code:  (NOTE: Enter the CPT code above) | The calculation results page is displayed |  |
|  | **Step** | Sign the calculation  (NOTE: CPRS1234 = “progone” as the e-signature) | The calculation results were successfully saved message is displayed.  Close the browser |  |
|  | **Step** | Login to VistA  (use the same Access/Verify code as CPRS) | VistA login successful |  |
|  | **Step** | At an option prompt enter “surgery menu” then enter the division as requested (enter camp) | Surgery menu is displayed |  |
|  | **Step** | * Enter “r” for “request operations” * Enter “r” for “Make Operation Request” * Select patient (TWENTYSEVEN,PATIENT recommended) * Enter “N” to not edit any existing requests * Enter “Y” to create a new request * Enter a Date for the surgery (pick a date that does not already have one scheduled listed above. “T” means “Today” -> T+1 means tomorrow.) * Enter Surgeon (programmer, one recommended) * Enter Attending (Programmer, one recommended) * Enter General for Surgical Specialty (or enter a “?” to see a list of options) * Enter text for Principal Operative Procedure * Enter text for Principal Preoperative diagnosis * Enter a number from 1-5 as the ASA Class * Enter a “N” for Requested Blood Components Available * Enter the CPT code used earlier in step 3 (e.g., 0001F) | Validate that the calculated surgical risk displays following the entry of the CPT code.  (NOTE: UAT testers will not be able to test the 60-day acceptance criteria.) |  |
|  |  | End of Test Case |  |  |

# TC #84 – ASRC-8: Search for procedure by description

**User Story(s):**  ASRC-8: Search for procedure by description

**Description –** As a primary care physician selecting a procedure, I want to search for the procedure by any term in the full, unabbreviated description, so that I can determine the relevant procedure based on a general search without intimate knowledge of the procedure set. (This could apply to non-PCPs, but the PCP use case drives how this feature will be implemented because they need the most information.)

*Acceptance Criteria:*

* Can search to include "all these words."
* Can search to include "any of these words." (Words in "all these words" are still required.)
* The search string can appear anywhere within the words of the description. (E.g., "kle" should match "ankle".)

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab & ASRC Application.

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #84 – Search for procedure by description*** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist)  (NOTE: Select TWENTYSEVEN,PATIENT in CPRS before launching ASRC) | The ASRC application displays and login was successful |  |
|  | **Step** | Select General Surgery surgical specialty | The General Surgery surgical specialty page is displayed |  |
|  | **Step** | Click Procedure: Select | The Select Procedure screen is displayed |  |
|  | **VP** | Examine the Select Procedure screen | Validate the following search boxes are available:   * “All of these words” * “Any of these words” * “CPT Search” |  |
|  | **VP** | Enter “kle” search text in “All of these words” | Validate the results contain at least one word that contains “kle” (i.e., “ankle”) |  |
|  | **VP** | Enter search text in “All of these words” | Validate the results each contain “All” of the entered words.  (NOTE 1: The FTL browser is very slow. Use short words or type slowly. It may take some time before the search completes.  NOTE 2: The entered words do not need to be in the same order as entered. They must be in the description somewhere.) |  |
|  | **VP** | Enter search text in “Any of these words” | Validate the results each contain “Any” of the entered words.  (NOTE: The FTL browser is very slow. Use short words or type slowly. It may take some time before the search completes.) |  |
|  | **VP** | Enter any combination of search terms in each of the search boxes | Validate correct search results.  (NOTE: The FTL browser is very slow. Use short words or type slowly. It may take some time before the search completes.) |  |
|  |  | End of Test Case |  |  |

# TC #85 – ASRC-14 (Albumin), ASRC-63 (Creatinine), ASRC-64 (WBC), ASRC-65 (Platelets), ASRC-66 (Hematocrit), ASRC-67 (SGOT), ASRC-68 (INR), ASRC-69 (BUN), ASRC-70 (Alkaline Phosphatase): Lab Automatic Retrieval

**User Story(s):**  ASRC-14 (Albumin), ASRC-63 (Creatinine), ASRC-64 (WBC), ASRC-65 (Platelets), ASRC-66 (Hematocrit), ASRC-67 (SGOT), ASRC-68 (INR), ASRC-69 (BUN), ASRC-70 (Alkaline Phosphatase)

**Description –** As a provider, I want the tool to automatically retrieve the patient's <User Story Lab> lab result from VistA, so that I don't have to search for or enter it myself.

*Acceptance Criteria:*

* Tool should display the lab result date on the user interface (even though the date is not used in the calculation).
* Tool should pull the latest result no matter how old.
* Tool pulls a lab test with the Laboratory Test Name equal to:
  + Albumin: “ALBUMIN”
  + Creatinine: “CREATININE”
  + WBC: “WBC” or “WHITE BLOOD COUNT”
  + Platelets: “PLATELET COUNT”
  + Hematocrit: “HCT”
  + SGOT: "SGOT", "Transferase Aspartate SGOT", "Aspartate Aminotransferase", or "AST"
  + INR: “INR”
  + BUN: “BUN", "UREA NITROGEN", or "BLOOD UREA NITROGEN"
  + Alkaline Phosphatase: "ALKALINE PHOSPHATASE".
  + Na+: “SODIUM” or “NA”
  + Bilirubin: “TOT.BILIRUBIN”
  + PTT: “PTT”
* Tool displays the value retrieved from VistA, including the VistA units, in static text next to the input.

**Preparation:** None

**Precondition**: Access to VA Future Technology Lab, ASRC Application, and VistA

**UAT Note:** UAT users please note that using the User Number will only be required until single-sign on with CPRS is implemented. Please use the login method that works when you are performing your tests.

| ***#*** | **Steps** | **Steps/Actions** | **Expected Results (VP) / Reference Information (STEP)** | **Actual Results**  **(P)ass / (F)ail** |
| --- | --- | --- | --- | --- |
| ***Test Case #85 – Lab Automatic Retrieval*** | | | | |
|  | **Step** | Login to the ASRC Application as user 11716 (Radiologist)  (NOTE: Select TWENTYSEVEN,PATIENT in CPRS before launching ASRC) | The ASRC application displays and login was successful |  |
|  | **Step** | Access Other Surgical Specialty | The selected specialty variable entry page is displayed |  |
|  | **VP** | Examine the Laboratory Values Section | Validate that the following variables have values and that the lab date and unit are displayed for each:   * WBC * INR * Platelets * Hematocrit * SGOT * Bilirubin * BUN * Creatinine * Albumin * Alkaline Phosphatase * Sodium   (NOTE 1: If the lab does not have a value use the “^BYPASS” function to create that lab.)  (NOTE 2: Lab name variations (e.g., WBC or “WHITE BLOOD COUNT”) can only be tested using a combo of FileMan and ^BYPASS. Do not attempt as part of UAT.) |  |
|  | **Step** | Click “Start New Calculation” | Surgical Specialty selection page is displayed |  |
|  | **Step** | Select Vascular surgical specialty | The Vascular specialty page is displayed |  |
|  | **VP** | Examine the Laboratory Values Section | Validate that the following variables have values and that the lab date and unit are displayed for each:   * PTT * INR * Platelets * SGOT * Bilirubin * BUN * Creatinine * Albumin * Alkaline Phosphatase   (NOTE 1: If the lab does not have a value use the “^BYPASS” function to create that lab.)  (NOTE 2: Lab name variations (e.g., WBC or “WHITE BLOOD COUNT”) can only be tested using a combo of FileMan and ^BYPASS. Do not attempt as part of UAT.). |  |
|  |  | End of Test Case |  |  |