# Test Criteria: 170.315.a.4 – Drug-drug, Drug-allergy Interaction Checks for CPOE

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| --- | --- |
| **Testing Result** |  |
| Participant and Product-with-version |  |
| Setting (Ambulatory or Inpatient) |  |
| Test Proctor |  |
| Test Date |  |
| Test Result | Pass:  Fail:  No Attempt: |
| Error Description (if applicable) |  |
| Modifications to Product Under Test |  |
| Additional Software Used |  |
| Additional Proctor Notes |  |

### Overview

In this document you will find:

* [Test Data and Test Tools](#_Test_Data_and)
* [Standards Support](#_Demonstrate_Standards_Support)
* [Drummond Test Report (Instructions, Expected Results, Points to Remember)](#_DTR_170.315(a)(4)(i)_–)
* [Test Procedures](#_DTR_170.315(a)(4)(i)_–)
* [Appendix A: Testing Guide](#_Appendix_A:_Testing)
* [Appendix B: ONC Criteria](#_Appendix_B:_ONC)

### Version of ONC Test Method

1.0

### Scope of Proctoring Sheet

The ONC test method associated with this criterion is the only approved test method for EHR Meaningful Use certification. This Proctoring Sheet is not a replacement test method but a test procedure document for performing the ONC test method and recording the results. Proctoring Sheet describe test data, test criteria and expected results. It is assumed the Vendor or Participant Under Test is familiar with the associated ONC test method.

# Robustness and Reliability Requirement

To satisfy the module criteria, it is expected that the Product-Under-Test is able to complete the testing requirements reliably, including repeat testing with the same result without error, and with a satisfactory level of robustness. This includes unexpected error messages produced through normal operation, multiple unintended restarts of the application or any other “buggy” facets of the product displayed while testing. These errors are record in the Additional Proctor Notes of the proctor sheet. Lack of reliability and robustness of design will result in failure of the module.

# Test Data and Tools

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| --- | --- |
| **Test Data Source:** | ONC-Supplied: DG-Supplied: Developer-Supplied: |
| **Pre-Test Data Setup:**  Health IT developer must:   * Configure severity level to show ‘all interactions’ * Pre-load at least one existing medication and allergy in a patient record. The health IT developer can use their own data **or** the sample data provided here:   Medication List:   * **Revlimid 20mg**(Optional: RxNorm: 1428946; NDC: 59572-415-21) * **Lisinopril 20mg** (Optional:RxNorm Code: 316153; NDC: 0378-2075-1)   Allergy List:   * **Penicillin** | |
| **Test Data:**  DG-supplied medication test data provided within this proctor sheet or health IT developer may opt to use own data. If supplying own data, notify Test Proctor before test event. | |
| **Test Tools:**  Not applicable. | |

# Demonstrate Standards Support

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| --- | --- |
| **Test Result:** | PASS:  FAIL:  No Attempt: |
| **Instructions:** There are no standards required for this criterion. | |

# DTR 170.315(a)(4)(i) – Drug-drug, Drug-allergy Interaction Checks for CPOE – Interventions

|  |  |
| --- | --- |
| **Test Result:** | PASS:  FAIL:  No Attempt: |
| **Instructions:**   * The user is automatically provided drug-drug and drug-allergy interventions when ordering a medication during CPOE. | |
| **Expected Test Result:**   * Health IT module must provide the drug-drug and drug-allergy intervention checks before the CPOE medication order is completed and acted upon. | |
| **Points to Remember:**   * This module is eligible for gap certification. * If health IT developer is also testing (a.1) CPOE-Medications, then developer may elect to perform the Drug-drug, drug-allergy interaction checks while testing module (a.1) CPOE-Medications. | |

**Test Procedures**

**Pre-Test Data: Drug-Drug, Drug-Allergy Intervention Checks**

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| --- | --- |
|  | The following medication and allergy data should be added to patient record prior to CPOE activity:  **Current Medication List** *(Ambulatory and Inpatient)*:   * **Revlimid** **20mg** (Lenalidomide)   *(Optional)* RxNorm Code: 1428946; sample NDC code 59572-415-21   * **Lisinopril 20mg** (Hydrochlorothiazide)   *(Optional)* RxNorm Code: 316153; sample NDC code 0378-2075-01  **Current Allergy List** *(Ambulatory and Inpatient)***:**   * **Penicillin** |

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**1.1 Interventions: Drug-Drug**

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|  | Using CPOE, user records medication orders as follows:   * *Ambulatory and Inpatient*: **Darbepoetin Alfa 0.5 MG/ML** once a week; injection; RxNorm: 576586; sample NDC product code: 55513-025-04 |
|  | Proctor verifies minor (Lisinopril) and major (Revlimid) drug-drug contraindications are automatically provided based on the patient’s current medication list and prior to completing the medication order. |

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**1.2 Interventions: Drug-Allergy**

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|  | Using CPOE, user records medication order as follows:   * *Ambulatory and Inpatient*: **Amoxicillin 500mg** |
|  | Proctor verifies drug-allergy contraindication (Penicillin-Amoxicillin) is automatically provided based on the patient’s current medication list and prior to completing the medication order. |

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**1.3 Adjustments**

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| --- | --- |
|  | Health IT developer identifies if the ability to adjust severity levels is limited to a specific set of users, or as a system administrative function. |
|  | Based on health IT developer response above, either an authorized user, or system administrator, adjusts severity levels to display only “severe” or “major” drug-drug interactions. |
|  | User will re-demonstrate the drug-drug interactions already done above to verify severity level has been adjusted and only “severe” or “major” interactions display. |
|  | Proctor verifies severity level for the drug-drug interaction demonstrated above was adjusted. |
|  | User logs in as unauthorized user to attempt to adjust severity levels. |
|  | Proctor verifies unauthorized user above cannot adjust severity levels. |

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# Appendix A: Testing Guide

*This appendix contains more details and background on the testing requirements, including explanation on underlying standards, notable issues and best practice suggestions.*

Rev 01-Mar-2016 Additions

* Intervention adjustment must be configurable by a user, even if it is an administrator user or change is fairly technical in nature (e.g. backend configuration files), and not “hard coded” or can only be adjusted by the vendor.
* It is not permissible to inactivate a specific active medication from the patient record to satisfy the requirement. The medication must remain active in the patient record, but only change the notification method of the EHR to modify the alert status.

# Appendix B: ONC Criteria and Standards

*This appendix contains copy of the relevant ONC criteria and standards for this proctor sheet as a reference. In the event of a discrepancy with the ONC Final Rule, the ONC Final Rule takes precedence.*

**§170.315(4) *Drug-drug, drug-allergy interaction checks for CPOE—*** (i) *Interventions.* Before a medication order is completed and acted upon during computerized provider order entry (CPOE), interventions must automatically indicate to a user drug-drug and drug-allergy contraindications based on a patient's medication list and medication allergy list.

(ii) *Adjustments.* (A) Enable the severity level of interventions provided for drug-drug interaction checks to be adjusted.

(B) Limit the ability to adjust severity levels in at least one of these two ways:

(*1*) To a specific set of identified users.

(*2*) As a system administrative function.

# Change Log

|  |  |
| --- | --- |
| Revision | Change Description |
| 01-Mar-2016 | Initial Release |
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**About Drummond Group LLC**

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