# Test Criteria: 170.315.g.1/g.2: Automated Numerator/Automated Measure Calculation

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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: |
| Measures Tested: | e-Prescribing  Patient Education  Secure Messaging  Patient Generated Health Data  Transitions of Care  Receive and Incorporate  Medication/Clinical Reconciliation  CPOE – Medications (gap eligible)  CPOE – Radiology (gap eligible)  CPOE – Laboratory (gap eligible)  (choose one):  Patient Electronic Access (2a)  Patient Electronic Access (2b)  Patient Electronic Access (2c)  (choose one):  View, Download, Transmit (4a)  View, Download, Transmit (4b)  View, Download, Transmit (4c) |
| 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)](#_170.315(a)(5)(i)_Record,_Change,)
* [Test Procedures](#_Test_Procedures)
* [Appendix A: Testing Guide](#_Appendix_A:_Testing)
* [Appendix B: CMS Measure Objectives and ONC Associated Criteria](#_Appendix_B:_ONC)
* [Appendix C: CMS EHR Incentive Programs - Eligible Providers/Clinicians](#_Appendix_C:_CMS)
* [Appendix D: CMS EHR Incentive Programs - Eligible Hospitals/CAH](#_Appendix_D:_CMS)

### Version of ONC Test Method

1.2

### 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 Health IT Developer 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 selects to certify either criteria (g.1) or (g.2), and not both. You may contact your Proctor for guidance on criteria selection. * Enter ONC-supplied test data based on setting of care and supported measures. Health IT product must calculate measures as outlined in test procedures below. * Using the DG-supplied “2015 Edition g1/g2 Report Template”, submit self-attestation report to Proctor at least two weeks prior to scheduled test date. * Retain ONC-supplied test data within health IT module in order to perform random validation test on scheduled test date or in the event retesting is needed. Section 1.3 below describes random validation for test day. | |
| **Test Data:**   * ONC-supplied test data can be obtained from the [ONC Test Procedure page](https://www.healthit.gov/policy-researchers-implementers/2015-edition-test-method). Select test data for either (g.1) or (g.2) that applies to the health IT module’s setting of care: * (g.1) Test Data Set 1 – EH/CAH * (g.1) Test Data Set 2 – EP/EC * (g.2) Test Data Set 1 – EH/CAH * (g.2) Test Data Set 2 – EP/EC * Note: Patient test data (names, birthdates, gender, etc.) must be entered as defined by ONC. Added a prefix or suffix to patient names to facilitate testing each measure is acceptable as long as the ONC-supplied patient name is clearly identifiable. | |
| **Test Tools:**  Not applicable. | |

# Demonstrate Standards Support

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| **Test Result:** | PASS:  FAIL:  No Attempt: |
| **Instructions:** Not applicable. | |

# 170.315(g1)/(g2) Automated Numerator/Automated Measure Calculation

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| --- | --- |
| **Test Result:** | PASS:  FAIL:  No Attempt: |
| **Instructions:**   * Self-attestation: * Using the ONC-supplied test data, developer is to record all patients based on measures supported by health IT module and setting of care. * Generate reports for the Global Required Test and each applicable Measure-Specific scenario test. * Using the DG-supplied “**2015 Edition g1/g2 Report Template**”, submit screenshots for each measure scenario. Additional attachments may be used if necessary. * Report expected to include screenshots of: * Test patient data recorded; * Actions performed to meet numerator/denominator criteria; * Dashboard showing calculations and resulting percentage (as applicable); and * List identifying patients that meet numerator criteria; * Submit test report to Test Proctor for validation two weeks prior to scheduled test event. * Random Sampling Conducted by Test Proctor: * On scheduled test date, Test Proctor will randomly select measures to test. Using the ONC-supplied test data, Test Proctor will instruct user to add new data, calculate numerators (g.1) or numerator/denominator with resulting percentage (g.2), and then verify calculations incremented accordingly. | |
| **Expected Test Result:**   * Global Required Test (g.1/g.2): * Calculate for a set period (e.g., 90 days, quarters, and full calendar year) * Correctly exclude or include actions occurring outside or inside the reporting/performance period or calendar year. * *Applies only to Inpatient certifying Patient Education (a.13)*: Calculate the two EH calculation methods (All ED and OBS only) * For (g.1), health IT module electronically records the numerator for each meaningful use/Advancing Care Information (ACI) objective with a percentage-based measure and create a report that includes the numerator recorded that is associated with each scenario for applicable Required Test (RT). * For (g.2), health IT module electronically record the numerator and denominator and resulting percentage for each meaningful use/Advancing Care Information (ACI) objective with a percentage-based measure and create a report that includes the numerator, denominator and resulting percentage recorded that is associated with each scenario for applicable Required Test (RT). * Each report should also include a list of patients that meet the numerator (g.1) or numerator and denominator (g.2) criteria. | |
| **Points to Remember:**   * Health IT developers must determine the (g1/g2) status for any 3rd party certified partner. With the new ONC modular certification structure, some certified partners may not have tested (g1/g2) criteria required for CMS reporting and may be left to the Health IT developer to certify specific measures under (g1/g2). * Health IT modules must be certified to (g1/g2) for any associated criteria presented for certification. * Health IT module can only be certified to either (g.1) or (g.2). Primary EHRs are expected to test (g.2). Modular-type products (e.g., patient portal) may elect to test (g.1) or (g.2). * CPOE measures are eligible for gap certification under (g.1/g.2). Inquire with Test Proctor regarding eligibility. * Health IT Developers may choose which EHR incentive programs their product will support. Consider client base when making this decision. * If health IT module is not DEA approved, then testing for controlled substances is not required for the e-Prescribing measure. * If a measure does not state a parameter within a reporting period, then the action may be able to be performed within calendar year. * The capability for technology to populate the numerator before, during, and after the reporting/ performance period depends on the numerator and denominator statements for the meaningful use measure. * Some automatic functions (e.g., required drug formulary check on all prescriptions) may be eligible to be excluded from testing. Discuss these with your Test Proctor. * For the numerator, there is a transitive effect across TINs, meaning that if a provider takes an action for the patient under one TIN/NPI combination she receives credit in the numerator under all TIN/NPI combinations within the same health IT module. Likewise, if a provider takes an action under one TIN, it will accrue to the group TIN calculation for all TINs the provider is in. * For the EC Individual and Group calculation methods, actions that accrue to the numerator have a transitive effect across all of the TINs that an individual NPI is included in. For example, if an EC provides patient education materials to a patient under TIN A, they will receive credit in the numerator for TIN B as long as the same NPI is used in both TINs and the same Health IT Module is used. The test data reflects this transitive effect. * For the group EC calculation, health IT modules must de-duplicate patients in the denominator and/or numerator. * Report should be submitted two weeks prior to your scheduled test event to allow Test Proctor sufficient time to review. * Retesting for (g1/g2) must be completed within two weeks of your final test date. | |

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### Test Procedures

**NOTE: This criteria is demonstrated using two methods:**

1. **Self-attestation reporting by the Health IT developer. The DG-supplied “2015 Edition g1/g2 Report Template” should be submitted as verification of testing the procedures outlined below.**
2. **A random sampling of test data will be demonstrated on a scheduled test date (see section 1.4 below).**

**1.1 Global Test – Admission Method for INPATIENT Only**

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| --- | --- |
|  | This section is tested only for Inpatient products certifying Patient-Specific Education (315.a.13) under Modified Stage 2. If not certifying Patient Education, then skip this section. |
|  | Health IT developer records test patients from the ONC-supplied test data tab labeled “Required Global Test”. Designate an encounter type to each test patient so that all types are designated:   1. Direct Admission to Inpatient Department (POS 21) 2. Admitted to ED and then admitted to Inpatient Department (POS 21) 3. Admitted to ED and discharged from ED (POS 23) 4. Admitted to ED and received Observation Services and then admitted to the Inpatient Department (POS 21) 5. Admitted to Inpatient Department (POS 21) upon receiving Observation Services in outpatient department of hospital (POS 22) |
|  | User creates two reports demonstrating both methods for Inpatient admission:   * Observation Services Method; and * All emergency department (ED) Visits Method |
|  | User completes and submits the “**2015 Edition g1/g2 Report Template**” provided by Drummond Group for verification of the following:   * Identification of Admission Method tested (*OBS* vs *All ED*); * Numerators/Denominator calculations and resulting percentage; and * Identification of patients for each numerator/denominator. |

<INSERT SCREEN SHOTS or LINK TO REPORT TEMPLATE>

**1.2 Global Test – Adjust Reporting Period and Actions Outside Reporting Period**

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|  | Health IT developer identifies at least one measure to test this section. Inpatient products may select to use the Patient Education measure tested in section 1.1 or select different measure(s). |
|  | User records all six (6) patients from the ONC-supplied test data tab labeled “Required Global Test” for the applicable setting of care and may attribute patients to one provider or hospital/facility. To test this criteria:     * Must use same names as provided in ONC test data; * Designate visit/admit dates based on “during” or “outside” reporting period as specified in ONC test data; * Developer may select dates to be used for “outside reporting period” for those test patient actions identified as “outside” so that they are excluded from reporting; * Perform actions as instructed within ONC either occurring “during” or “outside” reporting period; and * At least one patient falls within each of the six (6) reporting periods. |
|  | For each measure selected, user creates reports based on the following six (6) reporting periods and displays numerator/denominator calculations and resulting percentage:   * + Any 90 continuous days within a calendar year, including 90 day periods that span across more than 3 months (e.*g. Beginning May 12th*);   + Calendar year quarters (first, second, third, fourth); and   + Calendar year |
|  | User completes and submits the “**2015 Edition g1/g2 Report Template**” provided by Drummond Group for verification of the following:   * Required reporting periods tested; * Visit/Admit dates for each patient; * Actions for each patient; * Numerators/Denominator calculations and resulting percentage resulted for each measure within each reporting period listed above; and * Identification of patients for each numerator/denominator result. |

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**1.3 Measure-Specific Scenario Tests: Self-attestation**

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|  | Using the DG-supplied “**2015 Edition g1/g2 Report Template**”, Health IT developer identifies the EHR incentives programs and measures supported. Screenshots are to be appended to the template verifying self-demonstration of test procedures and should include:   * Recorded patient data; * Actions/workflow performed to increment numerator/denominator criteria; * Numerator/denominator calculations and resulting percentage; and * Identification of patients meeting numerator/denominator criteria |
|  | Using the designated measure tabs within the ONC test data spreadsheet, user records patients for all tests cases within each of the five (5) scenarios and may select a desired reporting period for each measure. |
|  | User performs the action/workflow specified within each test case based on each provider and TIN (if applicable) as outlined in the test data. *Note: while performing actions, user should capture screenshots to provide a review of the workflow necessary for the patient to meet the numerator/denominator criteria. Capturing 1-2 typical use case workflows per measure may suffice.* |
|  | User generates/displays calculation results for each measure tested and based on each applicable calculation method:  Ambulatory:   * **EP Modified Stage 2:** * Provider 1 and Provider 2 * **Stage 3** * Provider 1 and Provider 2 * **EC ACI Transition** * TIN A: Provider 1 and Provider 2, TIN B: Provider 1 and 2 * **EC Group ACI Transition** * Group TIN A/Group TIN B * **EC ACI** * TIN A: Provider 1 and Provider 2, TIN B: Provider 1 and 2 * **EC Group ACI** * Group TIN A/Group TIN B   Inpatient:   * **EH Modified Stage 2** * **EH Stage 3** |
|  | Screenshots and/or reports of calculation results should include:  For (g.1):   * Numerator calculations; and * List of patients that make up each numerator   For (g.2):   * Numerator/denominator calculations; * Resulting percentage; and * List of patients that make up each numerator and denominator |
|  | User completes and submits the “**2015 Edition g1/g2 Report Template**” provided by Drummond Group for verification of the following:   * Signed attestation by health IT developer attesting to the veracity and authenticity of all submitted (g.1/g.2) reports; * Description of any calculation results already discussed with Test Proctor that deviate from the expected results; * Screenshots of for each measure tested including: * Identify calculation method *(e.g., Modified Stage 2, ACI, etc.)* foreach report captured; * Reporting period; * For g1 only: Numerator calculations resulted for each reporting period listed above and identification of patients that meet each numerator criteria; * For g2 only Numerators/Denominator calculations and resulting percentage resulted for each reporting period listed above and identification of patients for each numerator/denominator; |

<INSERT SCREEN SHOTS or LINK TO REPORT TEMPLATE>

**1.4 Measure-Specific Scenario Tests: Demonstrate Random Sampling**

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|  | Health IT developer must schedule a test date to conduct the random sampling test and is encouraged to retain all (g.1/g.2) test data for this test. If retention is not feasible, notify your Proctor and data may be solely based on new patient data. |
|  | Proctor will randomly select some, if not all, of the objective measures presented for certification to test and capture a baseline report of any existing calculation results for these measures. Reporting period and provider may be selected by user. |
|  | Proctor will select 1-2 test cases from the ONC test scenarios for user to record. |
|  | User will generate/display calculation results to verify numerator/denominator calculations incremented based on data entered and according to measure logic. |

<INSERT SCREEN SHOTS or LINK TO REPORT TEMPLATE>

# 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-Feb-2017 Additions

* [ONC Test Data](https://www.healthit.gov/policy-researchers-implementers/2015-edition-test-method) tabs are designated based on objective measures. Each objective measure test data sheet contains five (5) scenarios:
* Scenario 1: New Patient (*numerator and/or denominator*)
* Scenario 2: Modify Test Data for Existing Patient (*numerator only*)
  + - Scenario 3: Add new or modify existing patient (*numerator and denominator*)
* Scenario 4: Add new or modify existing patient (*denominator only*)
  + - Scenario 5: Add new or modify existing patient (*numerator and denominator*)
* Each ONC Test Data tab consists of results based on three (3) calculation methods:
* Meaningful Use Provider NPI (‘***EP Modified Stage 2 and Stage 3’***);
* Correlates to ‘*Provider 1*’ and ‘*Provider 2*’
* ACI TIN/NPI for Eligible Clinicians (‘***EC ACI Transition and ACI’***);
* Correlates to ‘*TIN A/Provider 1*’ and ‘*TIN B/Provider 2’*
* ACI Group TIN (‘***EC Group ACI Transition and ACI***’)
* Correlates to ‘*Group TIN A*’ and ‘*Group TIN B’*
* Add up all TIN results in each group to reach “group” result

# Appendix B: CMS Measure Objectives and ONC Associated Criteria

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Measure-Objective** | **Modified Stage 2** | **Stage 3** | **ACI-Transition** | **ACI** | **ONC Criteria** |
| *ONC Required Test 1*  **e-Prescribing** | Objective 4 | Objective 2 | Objective 2 Measure 1 | Objective 2 Measure 1 | 315(b)(3) e-Prescribing  315(a)(10) Drug Formulary |
| *ONC Required Test 2*  **Patient Electronic Access** | Objective 8 Measure 1 | Objective 5 Measure 1 | Objective 3 Measure 1 | Objective 3 Measure 1 | 315(e)(1) VDT  315(g)(8) API Data Category\*  315(g)(9) API All Data Request\* |
| *ONC Required Test 3*  **Patient Education** | Objective 6 | Objective 5 Measure 2 | Objective 4 Measure 1 | Objective 3 Measure 2 | 315(a)(13) Patient Education |
| *ONC Required Test 4*  **View, Download, and Transmit** | Objective 8 Measure 2 | Objective 6 Measure 1 | Objective 3 Measure 2 | Objective 4 Measure 1 | 315(e)(1) VDT  315(g)(8) API Data Category\*  315(g)(9) API All Data Request\* |
| *ONC Required Test 5*  **Secure Messaging** | Objective 9 | Objective 6 Measure 2 | Objective 5 Measure 1 | Objective 4 Measure 2 | 315(e)(2) Secure Messaging |
| *ONC Required Test 6*  **Patient Generated Health Data** | N/A | Objective 6 Measure 3 | N/A | Objective 4 Measure 3 | 315(e)(3) Patient Health Information Capture |
| *ONC Required Test 7*  **Transitions of Care** | Objective 5 | Objective 7 Measure 1 | Objective 6 Measure 1 | Objective 5 Measure 1 | 315(b)(1) Transitions of Care |
| *ONC Required Test 8*  **Receive and Incorporate** | Objective 7 | Objective 7 Measure 3 | Objective 7 Measure 1 | Objective 5 Measure 3 | 315(b)(1) Transitions of Care  315(b)(2) Clinical Reconciliation  OR  315(b)(2) Clinical Reconciliation  and Incorporation |
| *ONC Required Test 9*  **Medical/Clinical Reconciliation** | N/A | Objective 7 Measure 2 | N/A | Objective 5 Measure 2 | 315(b)(1) Transitions of Care |
| *ONC Required Test 10*  **CPOE-Medication** | Objective 3 Measure 1 | Objective 4 Measure 1 | N/A | N/A | 315(a)(1) CPOE-Medications |
| *ONC Required Test 11*  **CPOE-Laboratory** | Objective 3 Measure 2 | Objective 4 Measure 2 | N/A | N/A | 315(a)(2) CPOE-Laboratory |
| *ONC Required Test 12*  **CPOE-Diagnostic Imaging** | Objective 3 Measure 3 | Objective 4 Measure 3 | N/A | N/A | 315(a)(3) CPOE-Diagnostic Imaging |

\*Supports the Stage 3 and ACI measures only

# Appendix C: CMS EHR Incentive Programs – Eligible Providers/Clinicians (EP/EC)

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

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| --- | --- | --- | --- | --- |
|  | **Modified Stage 2** | **Stage 3** | **ACI-Transition** | **ACI** |
| *Eligible Providers/Clinicians* | Medicaid | Medicaid | Medicare | Medicare |
| *Reporting Period* | 2015-2017 | 2017 (optional) Required 2018-beyond | 2017 | 2017 (optional) Required 2018-beyond |
| *Certified Technology* | 2014 and/or 2015 edition | Requires 2015 edition **effective Jan 1, 2018** | 2014 and/or 2015 edition | Requires 2015 edition **in 2018\*** |
| *Resources* | [CMS Final Rule Stage 3 and 2015-2017](https://www.federalregister.gov/documents/2015/10/16/2015-25595/medicare-and-medicaid-programs-electronic-health-record-incentive-program-stage-3-and-modifications)  [CMS Modified Stage 2 Information Page](https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Stage2MedicaidModified_Require.html) | [CMS Final Rule Stage 3 and 2015-2017](https://www.federalregister.gov/documents/2015/10/16/2015-25595/medicare-and-medicaid-programs-electronic-health-record-incentive-program-stage-3-and-modifications)  [CMS Stage 3 Information Page](https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Stage3Medicaid_Require.html) | [MACRA Final Rule (MIPS)](https://www.federalregister.gov/documents/2016/11/04/2016-25240/medicare-program-merit-based-incentive-payment-system-mips-and-alternative-payment-model-apm)  [CMS MACRA Information Page](https://qpp.cms.gov/) | [MACRA Final Rule (MIPS)](https://www.federalregister.gov/documents/2016/11/04/2016-25240/medicare-program-merit-based-incentive-payment-system-mips-and-alternative-payment-model-apm)  [CMS MIPS ACI Measures](https://qpp.cms.gov/measures/aci) |

\*ACI provides maximum reimbursement for ECs using certified 2015 edition technology beginning Jan 1, 2018. A 90-day reporting period is also permitted in 2018. See [CMS QPP page](https://qpp.cms.gov/) for further details.

# Appendix D: CMS EHR Incentive Programs – Eligible Hospitals (EH/CAH)

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

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| --- | --- | --- |
|  | **Modified Stage 2** | **Stage 3** |
| *Eligible Hospitals/CAH* | Medicaid and Medicare | Medicaid and Medicare |
| *Reporting Period* | 2015-2017 | 2017 (optional)  Required 2018-beyond |
| *Certified Technology* | 2014 and/or 2015 edition | Requires 2015 edition  **effective Jan 1, 2018** |
| *Resources* | [CMS Final Rule Stage 3 and 2015-2017](https://www.federalregister.gov/documents/2015/10/16/2015-25595/medicare-and-medicaid-programs-electronic-health-record-incentive-program-stage-3-and-modifications)  [CMS Modified Stage 2 Information Page](https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Stage2MedicaidModified_Require.html) | [CMS Final Rule Stage 3 and 2015-2017](https://www.federalregister.gov/documents/2015/10/16/2015-25595/medicare-and-medicaid-programs-electronic-health-record-incentive-program-stage-3-and-modifications)  [Updated CMS FR for Medicare Hospitals](https://www.federalregister.gov/documents/2016/11/14/2016-26515/medicare-program-hospital-outpatient-prospective-payment-and-ambulatory-surgical-center-payment)  [CMS Stage 3 Information Page](https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Stage3Medicaid_Require.html) |

# Change Log

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| --- | --- |
| Revision | Change Description |
| 10-Feb-2017 | Initial Release. |
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**About Drummond Group LLC**

Drummond Group LLC is a global software test and certification lab that serves a wide range of vertical industries.  In healthcare, Drummond Group tests and certifies Controlled Substance Ordering Systems (CSOS), Electronic Prescription of Controlled Substances (EPCS) software and processes, and Electronic Health Records (EHRs) : designating the trusted test lab as the only third-party certifier of all three initiatives designed to move the industry toward a digital future. Founded in 1999, and accredited for the Office of the National Coordinator Health IT Certification Program as an Authorized Certification Body (ACB) and an Authorized Test Lab (ATL), Drummond Group continues to build upon its deep experience and expertise necessary to deliver reliable and cost-effective services. For more information, please visit <http://www.drummondgroup.com> or email [ehr@drummondgroup.com](mailto:ehr@drummondgroup.com)

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