

# Local Coverage Determination (LCD): Lab: Flow Cytometry (L34215)

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## Contractor Information

CONTRACTOR NAME	CONTRACT TYPE	CONTRACT NUMBER	JURISDICTION	STATE(S)
Noridian Healthcare Solutions, LLC	A and B MAC	01111 - MAC A	J - E	California - Entire State
Noridian Healthcare Solutions, LLC	A and B MAC	01112 - MAC B	J - E	California - Northern
Noridian Healthcare Solutions, LLC	A and B MAC	01182 - MAC B	J - E	California - Southern
Noridian Healthcare Solutions, LLC	A and B MAC	01211 - MAC A	J - E	American Samoa Guam Hawaii Northern Mariana Islands
Noridian Healthcare Solutions, LLC	A and B MAC	01212 - MAC B	J - E	American Samoa Guam Hawaii Northern Mariana Islands
Noridian Healthcare Solutions, LLC	A and B MAC	01311 - MAC A	J - E	Nevada
Noridian Healthcare Solutions, LLC	A and B MAC	01312 - MAC B	J - E	Nevada
Noridian Healthcare Solutions, LLC	A and B MAC	01911 - MAC A	J - E	American Samoa California - Entire State Guam Hawaii Nevada Northern Mariana Islands

## LCD Information

### Document Information

LCD ID

Original Effective Date

L34215

For services performed on or after 10/01/2015

**LCD Title**

Lab: Flow Cytometry

**Revision Effective Date**

For services performed on or after 12/01/2019

**Proposed LCD in Comment Period**

N/A

**Revision Ending Date**

N/A

**Source Proposed LCD**

N/A

**Retirement Date**

N/A

**AMA CPT / ADA CDT / AHA NUBC Copyright Statement**

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**Notice Period Start Date**

N/A

**Notice Period End Date**

N/A

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**CMS National Coverage Policy**

Title XVIII of the Social Security Act (SSA), §1862(a)(1)(A), allows coverage and payment for only those services

that are considered to be medically reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of malformed body member.

Title XVIII of the Social Security Act (SSA), §1862(a)(7) states Medicare will not cover any services or procedures associated with routine physical checkups.

42 CFR §410.32 Diagnostic x-ray tests, diagnostic laboratory tests, and other diagnostic tests: Conditions.

CMS Internet-Only Manual System, Publication 100-08, *Medicare Program Integrity Manual*, Chapter 3, §3.4.1.3, Diagnoses Code Requirement.

CMS Internet-Only Manual System, Publication 100-08, *Medicare Program Integrity Manual*, Chapter 3, §3.6.2.3, Limitations of Liability Determinations.

CMS Internet-Only Manual System, Publication 100-03, *Medicare National Coverage Determinations*, Chapter 1, Part 2, Section 110.8.1, Stem Cell Transplantation.

## **Coverage Guidance**

### **Coverage Indications, Limitations, and/or Medical Necessity**

Flow cytometry (FCM) is a complex process to examine blood, body fluids, cerebrospinal fluid (CSF), bone marrow, lymph node, tonsil, spleen and other solid tissues. The use of peripheral blood and fine needle aspirate material avoids more invasive procedures for diagnosis.

A flow cytometer evaluates the physical and/or chemical characteristics of single cells as the cells pass individually in a fluid stream through a measuring device. Surface receptors, intracellular molecules, and DNA bind with fluorescent dyes that allow detection and evaluation.

When light of one wave length excites electrons of certain chemicals to energy levels above their ground state and upon return to ground state emits light of a longer wavelength, fluorescence is produced. A flow cytometer detects cell characteristics by measuring the fluorescence produced by fluorochromes conjugated either directly with cell components or conjugated to antibodies directed against cell components.

### **Indications**

#### **Cytopenias and Hypercellular Hematolymphoid Disorders**

Hematolymphoid neoplasia can present with cytopenias (anemia, leukopenia and/or thrombocytopenia) or elevated leukocyte counts. If medical review and preliminary laboratory testing fails to reveal a cause, bone marrow aspiration and biopsy are indicated to rule out an infiltrative process or a stem cell disorder. FCM is essential to evaluate hematolymphoid lineages. Although anemia commonly occurs in nonneoplastic diseases, anemia alone should not automatically trigger FCM.

FCM may be useful in hypercellular hematolymphoid disorders to differentiate reactive conditions from neoplastic conditions. In the absence of blasts, neutrophilic leukocytosis is not generally an indication for FCM. Isolated polycythemia and basophilia are not sufficient to warrant FCM.

#### **Lymphomas**

In the current World Health Organization (WHO) classification, all non-Hodgkin lymphomas (NHLs) are distinct clinicopathologic entities defined by their clinical features, morphology, immunophenotype and, where appropriate,

their genetic abnormalities. Immunophenotyping by FCM allows multiparameter evaluation of single cells and the ability to work on very small samples.

Most new cases of suspected NHL undergo initial immunophenotypic analysis as part of the routine handling of a specimen. A standard lymphoma panel is designed to identify abnormal populations of B cells, T cells and/or NK cells. A standard lymphoma panel might include a combination of markers from the following categories: T cells (CD2, CD3, CD4, CD5, CD7, CD8); B cells (CD19, CD20, CD23); Kappa and Lambda surface immunoglobulins light chains; plasma cells (CD38 and CD138); CALLA (CD10); CD45; CD56: FMC-7, CD103, CD11c, CD13, CD14, CD15, CD16 and CD34.

The immunophenotypes of lymphomas are widely known and FCM allows appropriate classification of most cases. However, atypical patterns occur and pose significant diagnostic difficulties where aberrant antigen expression patterns must be reconciled with morphology. Additional markers may be required to characterize the abnormal population of cells including markers of immature cells (HLA-DR), B cells (CD22) and myeloid cells (CD14, CD15, CD33, CD64, CD117).

### **Acute Leukemia**

The diagnosis and management of acute leukemia depend on the detection, identification and characterization of leukemic cells. The identification of leukemic cells is straightforward in most occasions. However, each acute leukemia subgroup has heterogeneous biologic characteristics, many of which are associated with a different response to therapy.

As part of a routine diagnostic workup, most suspected acute leukemia cases undergo initial multiparameter immunophenotypic analysis, combined with morphology, cytochemistry, cytogenetics, and molecular biology.

A standard acute leukemia FCM panel is designed to determine whether leukemic blasts are of myeloid or lymphoid origin, and then to further classify the neoplastic cells (myeloid blasts, B lymphoblasts, abnormal promyelocytes, monoblasts, etc). An acute leukemia panel might include a combination of cell markers from the following categories: stem cell lineage (CD34), immature cell lineage (HLA-DR, CD 10); T cell (CD2, CD3, CD4, CD5, CD7 and CD8); B cell (CD19, CD20); myeloid cell (CD13, CD14, CD15, CD 33, CD64 and CD117); CD38, CD45, and CD56.

When the routine panel is insufficient to characterize the leukemic cells, additional antibodies including erythroid markers (CD71 and glycophorin A), megakaryocytic markers (CD41, CD61) or cytoplasmic markers may be indicated.

### **Chronic Lymphocytic Leukemia (CLL) & Other Chronic Lymphoproliferative Diseases (CLPD)**

The history, physical exam (lymphadenopathy, splenomegaly and/or hepatomegaly) laboratory findings (lymphocytosis, granulocytopenia, anemia, thrombocytopenia), and lymphocyte morphology are suggestive of CLL. The diagnosis is established by paradoxical co-expression of CD5 on peripheral lymphocytes that express B cell markers (CD19, CD20, CD21 and CD 23) with Kappa or Lambda immunoglobulin light chain restriction. Additional markers such as CD38 and ZAP70 may provide important prognostic information.

FCM can distinguish CLL, the peripheral counterpart of small lymphocytic lymphoma, often diagnosed in lymph node biopsies, from other indolent lymphocytic malignancies including prolymphocytic leukemia, Waldenstrom's macroglobulinemia, leukemic phase of lymphomas, hairy cell leukemia, T-cell CLL, adult T-cell leukemia, large granulocytic leukemia and cutaneous T-cell lymphoma and natural killer (NK) disorders including KIR expression.

### **Plasma Cell Disorders**

Plasma cell disorders are often identified through a combination of clinical, laboratory studies (urine or serum gamma

globulins), morphologic, and radiologic findings. FCM immunophenotyping is useful to identify abnormal plasma cells, and the distinction between lymphoid and plasma cell neoplasms, and between reactive plasma cells and neoplastic plasma cells.

The initial FCM workup for a plasma cell disorder may include the basic lymphoma panel markers with additional markers such as CD28 and CD117.

### **Myelodysplastic Syndromes (MDS)**

The gold standard for an MDS diagnosis is assessment of bone marrow smears for dysplastic changes. FCM may assist in MDS determination through the identification of abnormal maturing myeloid cells. An abnormal phenotype by FCM is a minimal diagnostic MDS criteria to establish a definitive diagnosis.

MDS has a definite risk and rate of progression to acute leukemia. Standard FCM leukemia panels are indicated to evaluate progression and onset of leukemia.

### **Chronic Myeloproliferative Disorders (CMPD)**

Although genetic (Philadelphia chromosome and BCR/abl) and molecular studies (Jak 2) are the accepted cornerstone for the identification and classification of CMPDs, FCM may assist in the distinction from reactive hematopoietic proliferations and is important in the enumeration of blasts in the distinction from acute leukemia and an accelerated phase of CMPD.

CMPD also has a definite risk and rate of progression to acute leukemia. Standard FCM leukemia panels are indicated to evaluate progression and onset of leukemia.

### **Mast Cell Neoplasms**

Mast cell neoplasms are uncommon disorders. Mast cells coexpress multiple markers including CD9, CD33, CD45, CD68, CD117, but also lack several myelomonocytic antigens including CD14, CD15, CD16 and most T- and B- cells antigens. Neoplastic mast cells have a similar antigen profile, but also can coexpress CD2 and CD25, which helps in distinguishing malignant mast cells from mastocytosis.

### **Paroxysmal hemoglobinuria (PNH)**

PNH is a rare clonal hematopoietic disorder of stem cells. This condition is caused by genetic mutation that results in the absence of over a dozen surface antigens on red and white blood cells. FCM can diagnose PNH by assessing both the red and white blood cells for the absence of these antigens.

### **Minimal Residual Disease (MRD)**

FCM analysis for MRD must identify phenotypic features characteristic of the disease of interest. The MRD flow analysis should not rely on an exact match between the phenotype of the residual disease and the original diagnostic specimen because phenotypes can change over time and with treatment. The antibody combinations should be chosen to maximize detection of disease, limit the impact of phenotypic variation, and permit detection of disease following antibody directed therapy.

### **HIV Infection**

HIV-1 infection causes significant changes in the number of CD4 and CD8 positive lymphocytes. CD4 count falls roughly 30% while CD8 count increases within 6 months after seroconversion, causing a decrease in the CD4/CD8 ratio.

Following HIV-1 diagnosis, FCM should include enumeration of mature T cells (CD3), helper T cells (CD4) and suppressor T cells (CD8) to ensure all major T cell subsets are accounted for (the sum of helper CD4 and suppressor CD8 T cells is roughly close to the total number of CD3 positive T cells). This ensures that the absolute CD4 is not artificially decreased due to sample degradation or other artifact.

A WBC count with differential also needs to be performed to calculate the absolute CD4 count (absolute lymphocyte count times CD4%).

## **Organ Transplants**

In order to differentiate early rejection, immunosuppressive therapy toxicity or infection, FCM may be indicated to monitor postoperative organ transplants. CD3 is useful to monitor the effectiveness of certain immunosuppressive therapies. When the transplant patient demonstrates symptoms for the above conditions, repeated analysis may be required.

## **DNA Analysis**

### **Carcinoma, Non-hematolymphoid Tumors**

DNA analysis of tumor for ploidy and percent S-phase cells may be necessary for a few selective patients with carcinomas. When the obtained prognostic information will affect treatment decisions in patients with low stage (localized) disease, FCM results are useful.

### **Molar Pregnancy**

FCM is useful to evaluate molar and partial molar pregnancies. Using a method to quantify DNA, similar to that used for evaluation of carcinomas, partial moles (triploid), can be distinguished from normal placenta and complete molar (diploid) pregnancies.

## **Primary Immunodeficiencies(PIDS)**

PIDs are rare disorders that reflect inherited abnormalities in the development and maturation of cells responsible for immune function. More than 120 inherited immunodeficiency disorders are currently recognized. Affected individuals are prone to repeated infections, allergies, autoimmune disorders, and malignancies. Diagnosis typically occurs at an early age.

FCM may be indicated for diagnostic purposes and is usually limited to T (CD3, CD4, CD8), B (CD20) and NK cell (CD56) markers. Additional disease specific markers may be indicated.

## **Primary Platelet Disorders, Non-neoplastic**

FCM is used for platelet analysis in quantitative and qualitative disorders such as Glanzmann Thrombasthenia (GT) and Bernard-Soulier Disease (B-S). GT is a rare inherited or acquired platelet disorder. Hereditary GT is defined by platelets with decreased expression or absence of the GPIIa/GPIIb receptor. This receptor is responsible for the initial platelet plug at the site of endothelial injury. Absence of the receptor may result in increased bleeding.

Acquired GT is likely an autoimmune phenomenon with the presence of GPIIb/GPIIIa blocking antibodies. FCM may be used to determine the functional effect and identify the molecular targets of these antibodies.

B-S is another rare inherited disorder that prevents the initial binding of platelets at the site of endothelial injury by absence of or presence of abnormal surface GPIa/V/IX receptor. Abnormalities of this receptor prevent attachment of platelets to subendothelial or free von Willebrand's factor with subsequent tendency to bleed.

FCM may be used to measure antibodies directed at specific loci of the GPIa/V/IX receptor, which include GPIb (CD42b), GPIX (CD42a), and GPV (CD42d). FCM is also used to assess the size of platelets in the initial evaluation of B-S disease. In B-S disease, platelets are generally larger than normal. FCM can distinguish B-S platelets from fragmented RBCs and debris by antibodies directed to the GPIb/IX/V receptor.

### **Red Cell and White Cell Disorders, Non-neoplastic**

FCM is a valuable tool to establish abnormal or defective red blood cell, leukocyte and lymphocyte surface receptors, transmembrane molecules, and intracellular DNA.

It may be used in acquired and congenital red cell conditions such as in quantifying fetomaternal hemorrhage and hereditary spherocytosis, hereditary elliptocytosis, and hereditary persistence of fetal hemoglobin in the context of compound hemoglobinopathy syndromes.

FCM is a sensitive and specific method to identify leukocyte receptor abnormalities for the diagnosis of chronic granulomatous disease and CD11b deficiency.

It is an efficient method to identify lymphocytes HLA B27 associated with uveitis, ankylosing spondylitis, Reiter's syndrome and sacroiliitis.

### **Limitations:**

Since FCM immunophenotypes for most common lymphomas and leukemias are well characterized, Noridian does **NOT** consider it "reasonable and necessary" to perform more than 24 markers in a panel. When atypical or unusual FCM results are obtained, the selective addition of more markers may be indicated.

The flow report must document the specific indication for each marker over the 24 marker limit.

The FCM report must document the specific indication for **each** marker over the 24-marker limit. FCM reports without clear justification for each marker over 24 will be denied.

### **Summary of Evidence**

N/A

### **Analysis of Evidence (Rationale for Determination)**

N/A

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## **General Information**

### **Associated Information**

### **Documentation Requirements:**

Laboratories and physicians that request FCM studies **MUST** provide documentation of clinical and morphologic findings, cell counts (quantitative values), radiology and cytogenetic findings when available.

The referring physician or pathologist **MUST** provide the most specific suspected diagnosis or differential diagnosis to allow the performing laboratory to determine an appropriate panel of cell markers.

The performing laboratory **MUST** select an appropriate panel of cell markers for the suspected diagnosis.

Since Noridian expects the need for markers in excess of 24 to be rare, providers must include the following documentation to justify additional marker selection with their redetermination request:

- clinical information summary
- specific marker results
- diagnosis and interpretation
- rationale to support each additional marker in excess of 24

Redeterminations filed without this specific final report information shall be denied as not reasonable or necessary.

A flow cytometry report listing the antibodies performed and the percentage and expressed markers does NOT meet this documentation requirement for initial redetermination consideration or for the appeal process.

Hospital and reference labs must ensure the documentation in the medical record justifies the selection of the billed cell markers.

Flow cytometry is a dynamic field. Noridian will evaluate requests for coverage extension that are supported by peer reviewed literature.

Compliance with the provisions listed in this policy will be subject to postpayment data analysis and subsequent medical review. Failure to document and maintain supporting medical information in the patient's record or in the FCM report may result in overpayments and/or RAC referral.

### **Utilization Guidelines**

Medicare does not expect to see labs routinely perform more than 24 markers per specimen.

Comprehensive marker panels used to indiscriminately "screen" specimens, regardless of the submitted suspected diagnosis, are not considered reasonable and necessary.

An FCM performed more than every 3 months to monitor stable HIV infection is not considered reasonable or necessary. More frequent studies may be indicated if a patient develops drug resistance and needs to be treated with another antiviral(s).

DNA analysis for selected patients with carcinomas may be appropriate ONLY once after diagnosis and before treatment is initiated.

Noridian expects the initial flow evaluation to contain a greater number of antibody determinations than a subsequent follow-up study. MDS and CMPD are general exceptions because these disorders are at risk for developing leukemia. Progression to leukemia may necessitate cytoplasmic markers.

### **Sources of Information**

1. The development and coverage guidelines in this policy were based on a review of pertinent medical literature, policies from other Medicare contractors, and discussions with appropriate specialists.
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4. Craig FE, Foon KA. Flow Cytometric Immunophenotyping for Hematologic Neoplasm. *Blood*. April 2008;111(8):3941-3967.
5. Giannini S, Cecchetti L, Mezzasoma AM, et al. Diagnosis of Platelet-type von Willebrand Disease by Flow Cytometry. *Haematologica*. Nov 2009,doi:10.3324/haernatol.2009.015990.
6. Illoh OC. Current Applications of flow Cytometry in the Diagnosis of Primary Immunodeficiency Diseases. *Arch Pathol Lab Med./i> Jan 2004;128:23-31*.
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10. Swerdlow SH, Campo E, Harris NL, et al. eds. *World Health Organization Classification of Haematopoietic and Lymphoid Tissues*. IARC Press, Lyon 2008.
11. Wood BL. Flow cytometric diagnosis of myelodysplasia and myeloproliferative disorders. *Journal of Biological Regulators and Homeostatic Agents*. 2004;18:141-5.

## Bibliography

N/A

## Revision History Information

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
12/01/2019	R14	<p>The LCD is revised to remove CPT/HCPCS codes in the Keyword Section of the LCD.</p> <p>At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</p>	<ul style="list-style-type: none"> <li>• Other (The LCD is revised to remove CPT/HCPCS codes in the Keyword Section of the LCD.)</li> </ul>
12/01/2019	R13	<p>12/1/2019-At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not</p>	<ul style="list-style-type: none"> <li>• Provider Education/Guidance</li> <li>• Revisions Due To Code</li> </ul>

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
		<p>a restriction to the coverage.</p> <p>As required by CR 10901, all billing and coding information has been moved to the companion article, this article is linked to the LCD.</p>	Removal
10/01/2018	R12	<p>01/30/2019 - At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</p> <p>Added "Lab" to the title.</p>	<ul style="list-style-type: none"> <li>• Creation of Uniform LCDs With Other MAC Jurisdiction</li> </ul>
10/01/2018	R11	<p>09/05/2018 - At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</p> <p>The following codes were added and deleted per the Annual 2018 ICD-10 updates:</p> <p><b>Added:</b> C44.1121, C44.1122, C44.1191, C44.1192, C44.1221, C44.1222, C44.1291, C44.1292, C44.1921, C44.1922, C44.1991 and C44.1992.</p> <p><b>Deleted:</b> C44.112, C44.119, C44.122, C44.129, C44.192 and C44.199</p>	<ul style="list-style-type: none"> <li>• Creation of Uniform LCDs With Other MAC Jurisdiction</li> <li>• Revisions Due To ICD-10-CM Code Changes</li> </ul>
10/01/2017	R10	04/17/18: At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage	<ul style="list-style-type: none"> <li>• Provider Education/Guidance</li> </ul>

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
		<p>which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</p> <p>Effective 10/01/2017 added ICD-10 code Z85.72</p>	<ul style="list-style-type: none"> <li>• Creation of Uniform LCDs Within a MAC Jurisdiction</li> </ul>
10/01/2017	R9	<p>11/01/2017: At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</p> <p>Added ICD-10-CM codes D47.01 &amp; D47.02 effective DOS on or after 10/01/2017</p>	<ul style="list-style-type: none"> <li>• Creation of Uniform LCDs With Other MAC Jurisdiction</li> <li>• Revisions Due To ICD-10-CM Code Changes</li> </ul>
10/01/2017	R8	<p>08/24/2017: At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</p> <p>Effective DOS 10/01/<b>2017</b> the following ICD-10-CM codes were added, deleted:</p> <p>Added:</p> <ul style="list-style-type: none"> <li>• C96.20</li> <li>• C96.21</li> <li>• C96.22</li> <li>• C96.29</li> </ul> <p>The following ICD-10 code were deleted from the ICD-10 Codes that Support Medical Necessity field: C96.2 was deleted from Group 1</p>	<ul style="list-style-type: none"> <li>• Revisions Due To ICD-10-CM Code Changes</li> </ul>
10/01/2016	R7	<p>In Revision History #6 C82.11-C85.19 should have been C85.11-C85.19 effective for DOS of 10/01/15 and after.</p>	<ul style="list-style-type: none"> <li>• Typographical Error</li> </ul>

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
		<p><i>Date 07/07/2017: At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</i></p>	
10/01/2016	R6	<p>LCD revised to add ICD-10 codes C82.11-C85.19 effective for dates of service on or after 10/01/2015. These codes should have been included when we converted to ICD-10 with an effective date of 10/1/2015.</p>	<ul style="list-style-type: none"> <li>• Creation of Uniform LCDs Within a MAC Jurisdiction</li> </ul>
10/01/2016	R5	<p>The LCD is revised to add the following new codes effective 10/1/2016: C49.A0, C49.A1, C49.A2, C49.A3, C49.A4, C49.A5, C49.A9, D47.Z2, D89.40, D89.41, D89.42, D89.43, D89.49, N42.30, N42.31, N42.32 and N42.39 and correct typographical errors.</p> <p>The following ICD-10 code descriptions were changed in the ICD-10 Codes effective 10/1/2016: C81.11, C81.12, C81.13, C81.14, C81.15, C81.16, C81.17, C81.18, C81.19, C81.21, C81.22, C81.23, C81.24, C81.25, C81.26, C81.27, C81.28, C81.29, C81.31, C81.32, C81.33, C81.34, C81.35, C81.36, C81.37, C81.38, C81.39, C81.41, C81.42, C81.43, C81.44, C81.45, C81.46, C81.47, C81.48, C81.49, C81.71, C81.72, C81.73, C81.74, C81.75, C81.76, C81.77, C81.78, C81.79</p>	<ul style="list-style-type: none"> <li>• Typographical Error</li> <li>• Revisions Due To ICD-10-CM Code Changes</li> </ul>
10/01/2015	R4	<p>R4 Added ICD-10-CM codes D46.4 &amp; D46.9. Part A LCD combined with Part B LCD . Content and LCD number combine and made the same for both Jurisdiction E Parts A &amp; B</p>	<ul style="list-style-type: none"> <li>• Creation of Uniform LCDs Within a MAC Jurisdiction</li> </ul>

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
10/01/2015	R3	R3 LCD revised to add ICD 10 codes C85.91-C85.99.	<ul style="list-style-type: none"> <li>• Creation of Uniform LCDs Within a MAC Jurisdiction</li> </ul>
10/01/2015	R2	R2 LCD revised to add ICD-10-CM codes D64.9, D69.6, 70.9, 72.819, D72.829, D75.9	<ul style="list-style-type: none"> <li>• Creation of Uniform LCDs Within a MAC Jurisdiction</li> </ul>
10/01/2015	R1	Policy revised to add Revenue Codes and Bill Type Codes.	<ul style="list-style-type: none"> <li>• Creation of Uniform LCDs Within a MAC Jurisdiction</li> </ul>

## Associated Documents

### Attachments

N/A

### Related Local Coverage Documents

Article(s)

A57689 - Billing and Coding: Lab: Flow Cytometry

A55933 - Flow Cytometry Coverage Clarification

### Related National Coverage Documents

N/A

### Public Version(s)

Updated on 01/28/2020 with effective dates 12/01/2019 - N/A

Updated on 11/26/2019 with effective dates 12/01/2019 - N/A

Updated on 02/06/2019 with effective dates 10/01/2018 - 11/30/2019

Updated on 09/06/2018 with effective dates 10/01/2018 - N/A

Some older versions have been archived. Please visit the MCD Archive Site to retrieve them.

## Keywords

N/A