July 22, 2013

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RE: Draft Local Coverage Determination: Molecular Pathology Procedures (#DL33703)

To Whom It May Concern:

Thank you for the opportunity to comment on Draft Local Coverage Determination: Molecular Pathology Procedures. Because the purpose of this DLCD is to provide guidance on the general principles by which First Coast will review and make decisions about coverage for molecular pathology procedures, we have addressed details we consider relevant to the decision-making process. We have identified the draft language being addressed in italics.

We request that First Coast reconsider several issues and provide greater explanation regarding language in the DLCD.

<table>
<thead>
<tr>
<th>Coverage Guidance</th>
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<td>Coverage Indications, Limitations, and/or Medical Necessity</td>
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Molecular pathology procedures have broad clinical and research applications. The following examples of applications may not be relevant to a Medicare beneficiary or may not meet a Medicare benefit category and/or reasonable and necessary threshold for coverage. Such examples include Genetic Testing and Genetic Counseling (when applicable) for:

• Disease Risk,
• Carrier Screening,
• Hereditary Cancer Syndromes,
• Gene Expression Profiling for certain cancers,
• Prenatal diagnostic testing,
• Diagnosis and Monitoring Non-Cancer Indications, and
• Several Pharmacogenomics applications.

Based on the Centers for Medicare & Medicaid Services (CMS) Program Integrity Manual (100-08), this Local Coverage Determination (LCD) addresses the circumstances under which the item or service is reasonable and necessary under the Social Security Act, §1862(a)(1)(A).

“Many applications of the molecular pathology procedures are not covered services given lack of benefit category (preventive service)”
We would disagree with this statement because it is not consistent with the language of the law and Medicare instructions for contractors as provided in the manuals. It is true that some applications would not be covered by Medicare but disagree on the rationale. The reason for not covering a service is relevant to liability issues with the patient beneficiary and to the obligation of the contractor with respect to development of Local Coverage Determinations.

Some applications of molecular pathology procedures would not meet the criteria for use in the ‘diagnosis or treatment of illness or injury’ and therefore would be considered screening. Because they are not screening services that the statute specifies are covered, the use of tests for screening asymptomatic beneficiaries would be excluded because they do not meet the criteria in §1862(a)(1) of the Act. The service should be denied as ‘not medically necessary’.

**RATIONALE:**
Medicare has defined a hierarchy of reasons a service or item would not be covered by Medicare, as outlined in PIM 100-08. §3.6.2.5. There are 3 main reasons for Medicare to deny an item or service: there is no benefit category (e.g. eye glasses), the law specifically states that it is excluded (statutory exclusion) or it does not meet the medically “reasonable and necessary” criteria.

**Step #1: Benefit Category:** It is our interpretation that there is a benefit category for molecular pathology:

- The first benefit listed for Part B is medical and other health services 1832(a)(1); it specifies physicians services 1832(a)(B)(I).
- “Medical and other health services” are defined in 1861(s); they include physician services (q) and diagnostic services (1861(s)(2)(C).

Therefore, as services provided by physicians and as a subset of diagnostic services, molecular pathology studies would be potentially covered by Medicare.

**Step 2: Statutory Exclusion:**
If there is a benefit category, then the next reason to for noncoverage is if “the service/item is statutorily excluded by other than §1862(a)(1) of the Act;” (PIM 100-8, §3.6.2.5)

The critical language is “other than §1862(a)(1) of the Act”. The question of whether a service is preventive or screening and the frequency of services is addressed under §1862(a)(1) of the Act.

The statutory exclusions that would be ‘other than’ are identified in 1862(a)(2) through (25). They include personal comfort items, cosmetic surgery, dental care, eye exams for eye glasses or contacts, hearing aids, routine dental services, and services resulting from acts of war.

Molecular pathology is not one of the items specifically cited as excluded by the statute in [1862(a)(2) through (25)]
Step 3 - Not Medically Necessary denial:
Per PIM 100.8, §3.6.2.5, A service/item can be denied because it is “not reasonable and necessary as defined under §1862(a)(1) of the Act”

Under §1862(a)(1) of the Act, to be paid, items or services must be considered “reasonable and necessary and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member” and not be one of the items cited for exclusion in the subparagraphs.

The ABN brochure for providers states:

Medicare defines medical necessity as services that are:

- Reasonable and necessary,
- For the diagnosis or treatment of an illness or injury or to improve the functioning of a malformed body member, and
- Not excluded under another provision of the Medicare Program.

As per the instructions (PIM 100-8, §13.5.1) there are additional elements to consider as you have stated in the DLCD:

‘the service is safe and effective; and appropriate, including the duration and frequency that is considered appropriate for the item or service, in terms of whether it is furnished in accordance with accepted standards of medical practice for the diagnosis of the patient's condition; furnished in a setting appropriate to the patient's medical needs and condition; ordered and furnished by qualified personnel; one that meets, but does not exceed, the patient's medical need; and is at least as beneficial as an existing and available medically appropriate alternative.’

Like any medical service or item under consideration, individual diagnostic tests can fail to meet the “reasonable and necessary” criteria of the law. The decision about whether Medicare would cover the test depends on a) the individual’s status - whether they have symptoms or not and b) the purpose of testing. The reason for not covering the test when it is dependent on the situation would be addressed by the “reasonable and necessary” criteria.

Individual uses of a covered service/item which do not meet the ‘reasonable and necessary’ criteria:

a) Individual’s status: A service/test for a Medicare beneficiary person who is asymptomatic would not meet this criterion (except where the statute specifically states it is covered). There are situations in which this could happen with molecular pathology tests, e.g. if a genetic test is recommended to assess carrier status for any number of reasons. For example, because a family member (sibling) is positive for a mutation, testing of the beneficiary is recommended to assess their risk of developing the condition and the need for active intervention, for future healthcare decisions such as assessing reproductive risk, or for genetic counseling for other family members (children).

b) Exception as part of a CMS NCD to cover it as a clinical trial: Through the National Coverage Determination (NCD) process, Medicare has determined that pharmacogenomic testing of warfarin does not meet the ‘medical necessity’ criteria for general use. It has determined
that the medical evidence is not sufficient to meet the ‘reasonable and necessary’ criteria. However, CMS has determined that it can be covered when it is performed within the context of a clinical trial.

Therefore, when a molecular pathology test is being provided for a beneficiary who is asymptomatic, when it is being used to identify carrier status, it would not meet the criteria to be covered by Medicare referred and be denied as ‘not medically necessary’.

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**Molecular pathology tests for diseases or conditions that manifest severe signs or symptoms in newborns and in early childhood or that result in early death (e.g., Canavan disease) could be subject to automatic denials since these tests are not relevant to a Medicare beneficiary.**

We would disagree with this statement. There are 2 parts to this. The first and critical point is whether the newborn/child is a Medicare beneficiary. If a newborn/child is a Medicare beneficiary AND they have signs or symptoms of an illness for which one of these tests is medically indicated, then the testing should be covered. It meets the requirements of the law. However, it is unlikely that a newborn will be a Medicare beneficiary.

There is another situation related to newborns in which the testing is covered by Medicare. Medicare does cover genetic testing when they are considered reasonable and necessary for genetic disorders *in utero* is covered when the mother is a Medicare beneficiary, as described in NCD §190.3.

**REQUEST:** We request that the coverage status of these codes be modified to reflect coverage of tests consistent with NCD §190.3

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**Molecular pathology procedures (Tier1 and Tier 2) may be eligible for coverage when ALL of the following criteria are met:**

- *Alternative laboratory or clinical tests to definitively diagnose the disorder/identify the condition are unavailable or results are clearly equivocal;*

We would qualify this. If it is part of the criteria for diagnosing a condition, as defined by national guidelines or published peer-reviewed articles, the testing should also be covered.

Diagnostic testing is used for a number of recognized purposes in the practice of medicine:

- To confirm a suspected diagnosis
- To provide additional information about the physiologic/structural conditions associated with the signs/symptoms and provide additional guidance on the cause.

We understand that these must be medically necessary and appropriate for the patient and condition. However, we would like to emphasize that molecular pathology testing should be held to the same standard, and not more rigorous or limited, as other diagnostic tests covered
when used to confirm suspected medical diagnoses—like chest x-rays, CT, MRIs, PET scans, EKG, and other blood tests.

Standards of practice have been developed for diagnosing many conditions and include genetic testing requirements and recommendations.

i. Cases in which the diagnosis is made on the basis of phenotype, presentation, and other lab tests (genetic testing is not needed).

ii. In most cases, even if the clinical presentation is consistent with a diagnosis of a genetically-based condition, the definitive diagnosis cannot be made until the genetic testing confirms it. This is similar to the use of diagnostics to confirm a presumptive diagnosis made on the basis of history, symptoms, and examination, such as glucose testing to confirm the suspected diagnosis of diabetes or an x-ray to confirm the suspected diagnosis of fracture of a bone.

It would be medically inappropriate to give the diagnosis of a genetically-based condition without performing the testing that would confirm the genetic evidence, especially if the molecular testing is part of the clinical guidelines for that condition. This is especially true when it is a hereditary mutation that would have implications for reproduction and family member risk.

- **Availability of a clinically valid test, based on published peer reviewed medical literature;**

  We assume this is referring to ‘clinical validity’ which is defined as how accurately and reliably a test detects or predicts the clinically defined disorder or phenotype of interest. In the ACCE Model System, this would include clinical sensitivity, specificity, PPV, NPV. This is usually published. This is acceptable.

  **REQUEST:** Clarify language to be sure we are referring to the same type of testing.
• **Testing assay(s) are Food and Drug Administration (FDA) approved/cleared or if LDT (lab developed test) or LDT protocol or FDA modified test(s) the laboratory documentation should support assay(s) analytical validity and clinical utility;**

It is our experience that the FDA’s focus and LDT protocols address the analytic validity and clinical validity, not clinical utility.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
<th>Analytic sensitivity, analytic specificity, quality control, assay robustness</th>
<th>Clinical sensitivity, clinical specificity, PPV, NPV, Prevalence, Penetrance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analytic validity</strong></td>
<td>How accurately and reliably a test measures the genotype (or analyte) of interest in the clinical laboratory, and in specimens representative of the population of interest.</td>
<td></td>
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</tr>
<tr>
<td><strong>Clinical validity</strong></td>
<td>How accurately and reliably a test detects or predicts the clinically defined disorder or phenotype of interest.</td>
<td></td>
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<tr>
<td><strong>Clinical utility</strong></td>
<td>Evidence of improved measurable clinical outcomes, and the test’s usefulness and added value to patient management decision-making compared with current management without testing.</td>
<td>Effectiveness studies, Economic studies “...evidence of improved measurable clinical outcomes, and...usefulness and added value to patient management decision-making compared with current management without [the biomarker].”</td>
<td></td>
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Clinical utility is beyond the scope of the FDA review and approval for tests and for CLIA. It is related to the way the test is used in clinical practice.

**REQUEST:** We would support the position that the documents support analytic validity and clinical validity. It is relevant to approval of tests and is common practice in the area of laboratory tests.

• **Results of the testing must directly impact treatment or management of the Medicare beneficiary; AND**

We would like to address what might be considered “directly impact treatment or management of the Medicare beneficiary”.

First, it is important as we move into the provision of “patient-centered” care that we remember Medicare is paying for medical services on behalf of the beneficiary, the patient. The beneficiary
has requested medical services to address a medical concern. The results of the testing need to first have an impact on the patient – impact how they will make decisions and manage their health based on the results of the test. By extension, the test results will impact the treatment or management offered by the physician.

We are not the first to raise concern. The Secretary’s Advisory Committee on Genetic Testing (SACGT) commented in their reports on the following:

“If a test has utility, it means that the results—positive or negative—provide information that is of value to the person being tested because he or she can use that information to seek an effective treatment or preventive strategy. Even if no interventions are available to treat or prevent disease, there may be benefits associated with knowledge of a result.” Secretary’s Advisory Committee on Genetic Testing, Enhancing the Oversight of Genetic Tests, June 2000.

The “question of whether the information provided is significant and meaningful enough in a health care context” should consider its significance and meaning to both the patient and physician. (DHHS SACGHS Coverage Reimbursement 2006)

“Clinical utility takes into account the impact and usefulness of the test results to the individual, the family, and society. The benefits and risks to be considered include the psychological, social, and economic consequences of testing as well as the implications for health outcomes. Decisions about the use of a genetic test should be based upon a consideration of the risks of any follow-up tests required to confirm an initial positive test, the efficacy of available treatments, the degree of certainty with which a diagnosis can be made, and the potential for adverse psychological and social and economic effects versus beneficial treatment if a diagnosis is made. Factors affecting clinical utility include 1) the purpose of the test; 2) the quality of evidence for assessing outcomes; 3) the potential benefits and risks of test results; 4) the nature of the health condition and its potential outcomes; 5) uncertainties of genetic test results; and 6) the provision of information concerning other family members.” (The SACGT July 2000)

“…potential benefits of a positive test result include the possibility that it may provide knowledge of diagnosis or risk status, it could allow preventive steps or treatment interventions to be taken, or it may identify information about risk status in other family members (also a potential harm). The potential benefits of a negative test result include ruling out a specific genetic diagnosis or risk and/or eliminating the need for unnecessary screening or treatment.” (The SACGT July 2000)

“Genetic tests can sometimes provide important information about the course a disease may take. For example, certain cystic fibrosis mutations are predictive of a mild form of the disease. Other gene mutations may identify cancers that are likely to grow aggressively. “ (SACGHS A Public Consultation on Oversight of Genetic Tests, 2000)

Challenges related to Clinical Validity:

“For many genetic tests, particularly those that are predictive or presymptomatic, prospective knowledge of the test’s clinical validity may be incomplete for many years after the test is developed, although the probable clinical validity may be estimated in some cases using retrospective data. When information that may affect clinical validity is incomplete, the potential harms of the test may increase and must be considered more carefully. Even with incomplete
data, however, there may be sufficient information to warrant offering the test in addition to the fact that even greater harm may be caused by denying testing. Nonetheless, to minimize harms, it is important to collect data over time.” (Oversight Report: April 2008, p. 106 of 276)

a. **The result of the test will directly impact the treatment being delivered to the beneficiary**

We would like to be sure we are defining this in the same way so that it reflects the full practice of medicine. Many times, this is interpreted to mean that the test has to be directly linked to selecting a drug for cure or a surgical intervention for cure or to reduce symptoms.

The type of impact, a direct impact on treatment, depends on the purpose of the test, whether it is a diagnostic or pharmacogenomic test. We will address the general diagnostic testing first.

**DIAGNOSTIC TESTING**

We think of it in terms of “care of the patient “, the “plan of care” or the “treatment plan”. As in other areas where they are used by Medicare, e.g. SNF, Home Care, Hospice, the treatment plan includes everything related to the care of the patient. It is more than just how the physician uses the information and how it influences recommendations. It includes how the information is used by the patient with respect to the condition, their life, and the future. That is an important part of a “treatment plan”.

Examples of the direct impact of a test

- Confirming the diagnosis
- Directing other tests to obtain a diagnosis – ruling out some causes, redirecting to others
- Options for curative intervention: drug choices/response; Surgical or invasive interventions
- Options for symptomatic management – physical and mental/emotional
- Identification of associated comorbidities to be assessed and/or monitored.
- Decision-making about life issues, including management of comorbid conditions

We will expand on some of the examples to highlight their relevance with genetic/molecular testing:

- **Confirming the diagnosis**
  This has a major impact on the “plan of care”. It confirms the clinical diagnosis. If the condition has known treatment, the importance of testing is obvious. However, even if there is no known treatment for a condition at the time it’s diagnosed, obtaining a diagnosis for a patient’s symptoms/illness is still important and directly impacts the care of the patient in a number of ways.

  It has direct impact on the patient. Obtaining a definitive diagnosis is the reason a person seeks medical attention – to get a diagnosis so they know what is causing symptoms, whether it can be cured, what will help the symptoms, what the prognosis is, how the disease/symptoms will progress. Making sure one is not missing a curable condition is important for the patient and the physician. Having a confirmed diagnosis can mean that the long, often costly search for a cause can be over, and that no further testing is required to explain the symptoms. It can confirm the
fact that there is a medical reason for the patient’s symptoms and that it is not ‘all in their head’, an important outcome for the patient, family, friends and physician!

- **Identifying options for treatment**
  There are conditions for which the treatment options and timing of treatment is affected by the genetic results, especially the subtype. An example is Long QT Syndrome.

There are others for which there is no treatment or cure. The diagnosis still impacts the treatment. By confirming a different diagnosis, it can explain why a current treatment course which was appropriate for the presumed diagnosis is not as effective as expected. This would influence the physician recommendations and the patient’s decision about whether to continue said therapy.

It can also prevent the patient pursuing treatment for presumed (incorrect) diagnoses, treatment that carries its own risks and may be less effective or not effective at all for the accurate diagnosis.

It helps the patient evaluate other approaches they have been pursuing to cure or help their illness, e.g. vitamins or supplements, massage, acupuncture.

If there is no known treatment to cure the condition, it can shift attention to symptomatic care and discussion of long-term implications and decision-making.

- **Options for symptomatic management**
  Knowing the conditions and its natural history can help guide recommendations for symptom management and prevention (or delay of) secondary complications. Referrals and treatment planning by PT, OT, and SLP may be involved. Emotional support and treatment may be appropriate as the patient adjusts to the diagnosis with its implications for the present and future. They may need to learn new coping skills and create a network of support, which has been found to improve morbidity and mortality. Having a specific diagnosis can open the door to resources about the condition and support from others with the condition. From a patient’s perspective, these are all a direct result of having a definitive diagnosis even when there is no cure or treatment. Someday, there may be a clinical trial or a new drug that will work for symptoms related to their condition.

- **Impact on decision-making**
  Having a diagnosis helps the patient with decision-making about life issues affected by the condition, its prognosis, its natural history.

- **Identification of associated comorbidities to be assessed and/or monitored**
  Many of the genetic conditions are complicated medically, not only because of the primary presenting condition but also because of other conditions that are associated with the primary condition and/or because of how the condition presents and affects the patient.

Examples:
  - Fragile X – permutations of the FMR1 may not present as Fragile X (developmental delay, autism, etc.). They may present later in life displaying the neurodegenerative effect: ataxia, tremor, memory loss, and peripheral neuropathy. They also have an increased association
with sleep apnea, hypothyroidism, autonomic dysfunction, depression/anxiety/agitation, and hypertension.

- Prader-Willi Syndrome – patients may not demonstrate the full phenotypic features and may not be properly diagnosed in their youth. Having an accurate diagnosis is relevant to the primary care physician. Features of PWS that are relevant to the physician providing daily care or evaluating the patient in the ED: very high threshold for pain and inability to localize pain, thermal dysregulation and failure to develop fevers, lack of vomit response in light of ingestion of toxic substances or pathogens, hyperphagia for food and water to the point of rupture/water intoxication, and sensitivity to anesthesia.

**IMPACT OF PHARMACOGENOMIC TESTING:**

If the test is performed for pharmacogenetic reasons, then the impact should be considered from that perspective. The key questions are whether the test will be able to guide choice of drug, dosing, side effects, or testing, or duration of treatment. The criteria provided by Medicare become more relevant: specifically providing care that does not exceed the patient’s need and is “at least as beneficial as an existing and available medically appropriate alternative”.

The National Coverage Decision (NCD) on warfarin testing is an example relevant to the interpretation and decision about whether a test will meet “reasonable and necessary” criteria and should be covered. In 2009, Medicare initiated a National Coverage Analysis (NCA). They reviewed the literature, developed a draft position, reviewed public comments and issued their recommendations (NCD 90.1). In their analysis and final decision about whether it was reasonable and necessary and would be covered by Medicare, they considered whether it improved the outcome. “…improving outcome” would be in comparison with the current standard of care: does it do as well as the current standard, does it do better? Can it replace the current approach or is it done in addition to the current approach?

For warfarin, the question was whether the test results affected the decision to use warfarin, the initial dose, the dosing amount or interval, the need for testing, and/or the number of adverse events because of increased bleeding risk from high PT/INR.

- If the test did “as well as” the standard, it could potentially be covered depending on how it relates to the current standard approach.
- Does the evidence indicate that the test in question is sufficient and could be an alternative to or substitute for the standard approach or would modify the standard approach significantly if both were used (e.g. frequency of PT/INR testing)?
- If it cannot replace the current recommended testing, then would it be provided ‘in addition’ to the standard? If it is done ‘in addition’, the critical question is whether it results in any real changes in the management of the patient.
- From Medicare’s perspective, if it would be done in addition to the standard approach and it didn’t improve the results, then it would ‘exceed the patient’s need’ and not be medically needed. It would not be considered to be an important part of their care and the decisions for care.

There are a number of conditions and drugs for which the evidence and guidelines demonstrate the importance of gene testing in the choice and/or dose of drugs for treatment with respect to directing or limiting treatment options all should follow the same criteria as listed above.
• **Individual has not previously received genetic testing for the disease/condition. (In general, diagnostic genetic testing for a disease should be performed once in a lifetime.)**

One exception to this situation is for those patients who may have had a prior negative result obtained using an older technology, but who still exhibit a phenotype that is consistent with or similar to the condition. In these situations new methods of testing may allow the ability to detect variations of mutations that would not have been detected using the older technology. Additionally, new types of mutations may have been identified that were not previously known that contribute to that particular phenotype. Testing for Prader-Willi syndrome is one example where an atypical mutation may not be detected using array CGH which has proven a powerful method for detecting microdeletion syndromes that may not be identified using conventional karyotyping, FISH probes or Southern blot hybridization.

**Proposed/Draft Process Information**

**DOCUMENTATION REQUIREMENTS**

*When the documentation does not meet the criteria for the service rendered or the documentation does not establish the medical necessity for the services, such services will be denied as not reasonable and necessary under Section 1862(a)(1)(A) of the Social Security Act.*

As per PIM 100.8, §3.6.2.5, a service/item can be denied because it is “not reasonable and necessary as defined under §1862(a)(1) of the Act”.

Section 1862(a)(1)(A) only addresses the nonpayment – “that no Medicare payment shall be made for items and services which are not reasonable and necessary for the diagnosis or treatment of illness or injury...”

There are other reasons recognized in the law and described by Medicare for why a service could be denied as not medically necessary, e.g. frequency in excess of medical need or exceeding a once in a lifetime limit on coverage. These are listed under Section 1862(a)(1)(A) through (P).

**REQUEST:** Delete the “(A)” in the justification for denial to be consistent with the PIM instructions: §1862(a)(1) and to include all the reasons for a denial as not reasonable and necessary.

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**Utilization Guidelines**

*Screening services such as pre-symptomatic genetic tests and services used to detect an undiagnosed disease or disease predisposition are not a Medicare benefit and are not covered.*

1) There is a benefit category for molecular pathology testing: ‘medical and other health services’ in section 1832(a)(1); it specifies physicians services [1832(a)(B)(I)]. “Medical and other health services” are
defined in 1861(s); they include physician services [1861 (q)] and diagnostic services (1861(s)(2)(C). Molecular pathology tests are a subset of diagnostic services and one of the services performed by/under physicians.

According to PIM 100.8, §3.6.2.5, a service/item can be denied because it is “not reasonable and necessary as defined under §1862(a)(1) of the Act”. Screening in the asymptomatic person is not covered because the patient does not have signs or symptoms of an illness and therefore it is not being used to diagnose an illness in this particular beneficiary. We have provided our full rationale for this statement in our response earlier.

We are addressing this in some detail because the reason for not covering a service is relevant to liability issues with the patient/beneficiary and to the obligation of the contractor with respect to development of Local Coverage Determinations. It also clarifies for the beneficiary and the physician where their disagreement with a noncoverage decision resides and with who it needs to be addressed, e.g. the contractor or Congress.

REQUEST: Modify the statement to indicate that the reason for denial is that the law requires that services be covered only when the patient has signs or symptoms of an illness or injury. Therefore, it will be denied because it does not meet the standard of reasonable and necessary under Section 1862(a)(1) of the Social Security Act.

2) Implementation of this restriction on covering services

Given that testing for germline mutations can be done for different reasons: 1) to diagnose a condition in a person with signs/symptoms, which would covered and 2) a second use to identify carrier status, including reproductive risk, which would not be covered because the person is asymptomatic, physicians need to have a mechanism to tell First Coast which use is being billed for so that they can get the appropriate denial, specifically for the second use.

Possible solution:
In 2002, Medicare created modifiers just for this purpose. Per Medicare instructions, CPM104 Chapter 23. §20.9.1.1.E. Coding for Noncovered Services and Services Not Reasonable and Necessary

<table>
<thead>
<tr>
<th>GA</th>
<th>Waiver of liability statement on file. (The physician expects Medicare will deny a service as not reasonable and necessary and they do have an ABN signed by the beneficiary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GZ</td>
<td>Item or service expected to be denied as not reasonable and necessary. (The physician expects Medicare deny a service as not reasonable and necessary and they do NOT have an ABN signed by the beneficiary)</td>
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</tbody>
</table>

If the test is being used in the asymptomatic person to define carrier status or reproductive risk, it would not meet the “reasonable and necessary” condition as defined under §1862(a) (1) of the Act. This is the definition for the GA or GZ modifier, depending on whether there is an ABN on file. When the test is used to diagnose an illness, or in response to symptoms, it is consistent with the language of the law defining Medicare, it would not have the modifier and should be covered.
**REQUEST:** We suggest that First Coast instruct, physicians claims submitted for tests performed in the asymptomatic person for purposes of screening for carrier status or to address reproductive risk should have either the GA or GZ modifier attached, depending on whether there is a signed ABN on file. This could be accomplished with an article accompanying this LCD,

_A specific genetic test may only be performed once in a lifetime per beneficiary for inherited conditions;_

While we understand the intent of this statement with respect to frequency based on medical need, the relationship of genes to genetically linked conditions and the structure of the CPT codes do not make this something that can be managed easily with respect to adjudicating claims.

1. Genetic mutations and Clinical conditions.
The critical question is whether the restriction is meant to refer to genetic testing for a specific medical condition and not 'a test'. The relationship between gene mutation definition and a clinical condition is 1:1 relationship meaning that a condition is defined by only 1 gene/allele mutation.

2. Structure of the CPT codes
The CPT codes for HLA testing are not specific for one gene. They are not even related to a specific method. Each code describes a specific result, e.g. low, intermediate or high resolution, as a result of testing performed on either a ‘locus’ (AKA gene) or allele.

One code could be used to report testing done an HLA-DRB1, -DRB3, -DRB4, -DRB5, -DQB1, -DQA1, -DPB1, and/or -DPA1, depending on the code in question. For the codes reporting alleles, each gene can have hundreds of alleles associated with different genes and conditions.

With respect to this statement, the question is whether the limitation on testing refers to testing the gene combinations for a disease , e.g. celiac disease, the genes, or a limitation on each of the CPT codes reported to test for each of these genes. Earlier in the DLCD, the limitation was applied to the disease or condition.

How testing for these are presented on a claim would depend on which tests were done, which combination of low and high resolution results. However, genetic testing for the condition would be a combination of at least 3 CPT codes in multiple units. That means a person could require HLA testing for different conditions, associated with specific genes/alleles, that would be reported under the same CPT codes. In addition, a person could require HLA typing for other causes such as transplantation or platelet transfusion that would be reported using the same CPT codes.
If we look at common conditions with defined genetic definition, the question is whether the limitation on the diagnosis, the gene/allele, or the tests reported via CPT codes?

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Gene/allele</th>
<th>CPT code to bill/#units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ankylosing Spondylitis</td>
<td>HLA-B27</td>
<td>81374</td>
</tr>
<tr>
<td>Acute anterior uveitis</td>
<td>HLA-B27</td>
<td>81374</td>
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<tr>
<td>Birdshot retinopathy</td>
<td>HLA-A29</td>
<td>81374</td>
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<tr>
<td>Behcet’s disease</td>
<td>HLA-B51</td>
<td>81374</td>
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<tr>
<td>Psoriasis</td>
<td>HLA-Cw6</td>
<td>81374</td>
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<tr>
<td>Celiac disease</td>
<td>HLA-DQ2, (DQA1<em>05/DQB1</em>0201 or 0202)</td>
<td>81377 (DQA1<em>05) 81383x2 (DQB1</em>0201 or 0202)</td>
</tr>
<tr>
<td>Rheumatoid Arthritis</td>
<td>HLA-DR4</td>
<td>81377</td>
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</tbody>
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**REQUEST:** Please clarify to what the one/lifetime limitation will be applied: the diagnosis, the gene/allele, or CPT code(s) used to report the testing. Please provide instruction on how to bill for services where testing for other conditions is done under the same CPT code so that test for other conditions or other medical reasons will not be inappropriately or inadvertently denied as exceeding the lifetime limit.

 when medically reasonable and necessary, genetic testing may be done on acquired conditions such as malignancies (including separate malignancies developing at different times) as they are treated and are being followed, in order to assess response or other relevant clinical criteria. Likewise, there are situations where medical record and literature documentation are able to demonstrate that serial testing can be reasonably predicted to provide additional clinically useful information. When the record documents that this information, such as confirmed significant response to current therapy, is likely to assist in modifying treatment, serial testing can be considered reasonable and necessary and eligible for coverage.

*See the response above for issues with claims submission.*
We respectfully ask that you consider our comments which were prepared by a consortium of members of the Association for Molecular Pathology, the ASHI (American Society for Histocompatibility and Immunogenetics), the American College of Medical Genetics, and Laboratory Directors, staff and consultants who provide service to Medicare beneficiaries covered by First Coast. We are happy to be of assistance in providing additional clinical information, references, contacts, or whatever is needed to assist you with this DLCD. Please direct your correspondence to Gretchen Schaef Johns, MD, Medical Director/Assistant Professor, Department of Laboratory Medicine & Pathology, Mayo Clinic, Jacksonville, FL (johns.gretchen@mayo.edu).

Sincerely,

Jennifer L. Hunt, MD, MEd
President

REFERENCES


Secretary's Advisory Committee on Genetics, Health and Society (SACGHS)

- SACGHS Report.