

Department of Origin: Integrated Healthcare Services	Effective Date: 03/05/24
Approved by: Medical Policy Quality Management Subcommittee	Date Approved: 03/05/24
Clinical Policy Document: Laboratory Testing for Detection of Heart Transplant Rejection	Replaces Effective Clinical Policy Dated: 03/07/23
Reference #: MC/L014	Page: 1 of 4

PURPOSE:

The intent of this clinical policy document is to ensure services are medically necessary.

Please refer to the member's benefit document for specific information. To the extent there is any inconsistency between this policy and the terms of the member's benefit plan or certificate of coverage, the terms of the member's benefit plan document will govern.

POLICY:

Benefits must be available for health care services. Health care services must be ordered by a provider. Health care services must be medically necessary, applicable conservative treatments must have been tried, and the most cost effective alternative must be requested for coverage consideration.

GUIDELINES:

Medical Necessity Criteria - Requesting AlloMap® or AlloSure® molecular testing for heart allografts - Must satisfy the following: I - II

- I. Test is ordered by a transplantation center; and
- II. Member is more than two months post heart-transplantation.

EXCLUSIONS (not limited to):

Refer to member's Certificate of Coverage or Summary Plan Description

The following is considered investigative (see Investigative List)

- MyTAIHEART® for detection of heart transplant rejection

BACKGROUND:

AlloMap® is intended to aid in the identification of heart transplant recipients with stable allograft function who have a low probability of moderate to severe acute cellular rejection at the time of testing in conjunction with standard clinical assessment. It is a panel test of 20 gene assays, 11 informative and 9 used for normalization and/or quality control, which produces gene expression data used on the calculation of a test score – an integer ranging from 0-40.

Compared with patients in the same post-transplant period, the lower the score, the lower the probability of acute cellular rejection at the time of testing. The test is performed at XDx Reference Laboratory.

The premise for AlloSure® is that rejection entails injury, including increased cell death in the allograft, leading to increased donor-derived cell-free DNA (dd-cfDNA) released into the bloodstream. The AlloSure® test for dd-cfDNA detected in the blood of transplant recipients has been developed as a noninvasive marker for diagnosis of graft rejection. The AlloSure® assay is a targeted next-generation sequencing assay that uses 266 single-nucleotide polymorphisms (SNPs) to accurately quantify dd-cfDNA in transplant recipients without separate genotyping of donor or recipient. The assay quantifies the fraction of dd-cfDNA in both unrelated and related donor-recipient pairs and can be completed within 3

Department of Origin: Integrated Healthcare Services	Effective Date: 03/05/24
Approved by: Medical Policy Quality Management Subcommittee	Date Approved: 03/05/24
Clinical Policy Document: Laboratory Testing for Detection of Heart Transplant Rejection	Replaces Effective Clinical Policy Dated: 03/07/23
Reference #: MC/L014	Page: 2 of 4

days of peripheral blood collection, a practical turnaround time for management of transplant recipients. AlloSure® assay results are reported as the percentage of dd-cfDNA in total cfDNA.

Department of Origin: Integrated Healthcare Services	Effective Date: 03/05/24
Approved by: Medical Policy Quality Management Subcommittee	Date Approved: 03/05/24
Clinical Policy Document: Laboratory Testing for Detection of Heart Transplant Rejection	Replaces Effective Clinical Policy Dated: 03/07/23
Reference #: MC/L014	Page: 3 of 4

Prior Authorization: Yes, per network provider agreement

CODING:

CPT® or HCPCS

81595 Cardiology (heart transplant), mRNA, gene expression profiling by real-time quantitative PCR of 20 genes (11 content and 9 housekeeping), utilizing subfraction of peripheral blood, algorithm reported as rejection risk score

CPT codes copyright 2024 American Medical Association. All Rights Reserved. CPT is a trademark of the AMA. The AMA assumes no liability for the data contained herein.

REFERENCES:

1. Integrated Healthcare Services Process Manual: UR015 Use of Medical Policy and Criteria
2. Clinical Policy: Coverage Determination Guidelines MP/C009
3. Clinical Policy: Laboratory Tests MP/L001
4. Eisen HJ. Heart transplantation in adults: Diagnosis of allograft rejection (Topic 3519, Version 21.0; 20-0; last updated: 01-10-23). In: Hunt SA, ed. *UpToDate*. Waltham, Mass.: UpToDate; 2020. www.uptodate.com. Accessed 12-12-23.
5. Evans RW, Williams GE, Baron HM, et al. The economic implications of noninvasive molecular testing for cardiac allograft rejection. *Am J Transplant*. 2005;5(6):1553-1558.
6. Deng MC, Eisen HJ, Mehra MR, et al; CARGO Investigators. Noninvasive discrimination of rejection in cardiac allograft recipients using gene expression profiling. *Am J Transplant*. 2006;6(1):150-160.
7. Starling RC, Pham M, Valentine H, et al; Working Group on Molecular Testing in Cardiac Transplantation. Molecular testing in the management of cardiac transplant recipients: Initial clinical experience. *J Heart Lung Transplant*. 2006;25(12):1389-1395.
8. Pham MX, Teuteberg JJ, Kfoury AG, et al.; IMAGE Study Group. Gene-expression profiling for rejection surveillance after cardiac transplantation. *N Engl J Med*. 2010;362(20):1890-1900.
9. Jarcho JA. Fear of rejection--monitoring the heart-transplant recipient. *N Engl J Med*. 2010;362(20):1932-1933.
10. Tice JA. Gene expression profiling for the diagnosis of heart transplant rejection. Technology Assessment. San Francisco, CA: CTAF; October 13, 2010.
11. Phillips M, Boehmer JP, Cataneo RN, et al. Heart allograft rejection: Detection with breath alkanes in low levels (the HARDBALL Study). *J Heart Lung Transplant*. 2004;23:701-708
12. U.S. Food and Drug Administration (FDA), Center for Devices and Radiological Health (CDRH). Heartsbreath - H030004. New Humanitarian Device Approval. CDRH Consumer Information. Rockville, MD: FDA; February 24, 2004. Retrieved from <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfhde/hde.cfm?id=H030004>. Accessed 12-12-23.
13. Phillips M, Cataneo RN, Greenberg J, et al. Effect of age on the breath methylated alkane contour, a display of apparent new markers of oxidative stress. *J Clin Lab Med*. 2000;136:243-249
14. U.S. Food and Drug Administration (FDA). Decision Summary. 510(k) Substantial Equivalence Determination Decision Summary. Assay and Instrument Combination Template. 510(k) Number: k073482. AlloMap® Molecular Expression Testing. Retrieved from https://www.accessdata.fda.gov/cdrh_docs/reviews/k073482.pdf. Accessed 12-12-23.
15. Moayed Y, Foroutan F, Miller RJH, et al. Risk evaluation using gene expression screening to monitor for acute cellular rejection in heart transplant recipients. *J Heart Lung Transplant*. 2019;38(1):51-58.
16. Deng MC. The AlloMap™ genomic biomarker story: 10 years after. *Clinic Transplant*. 2017;31(3):e12900.

Department of Origin: Integrated Healthcare Services	Effective Date: 03/05/24
Approved by: Medical Policy Quality Management Subcommittee	Date Approved: 03/05/24
Clinical Policy Document: Laboratory Testing for Detection of Heart Transplant Rejection	Replaces Effective Clinical Policy Dated: 03/07/23
Reference #: MC/L014	Page: 4 of 4

17. Holzhauser L et al. Noninvasive Heart Transplant Rejection Surveillance Guide: Key Points. 2023. American College of Cardiology. Retrieved from <https://www.acc.org/Latest-in-Cardiology/ten-points-to-remember/2023/03/08/14/29/the-end-of-endomyocardial-biopsy>

DOCUMENT HISTORY:

Created Date: 01/10/2014
Reviewed Date: 12/30/14, 12/30/15, 12/09/16, 12/08/17, 12/07/18, 12/06/19, 12/04/20, 12/22/20, 11/30/21, 11/30/22, 11/22/23
Revised Date: 01/15/16, 01/09/19, 10/09/20, 03/29/22

PreferredOne Community Health Plan Nondiscrimination Notice

PreferredOne Community Health Plan (“PCHP”) complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex. PCHP does not exclude people or treat them differently because of race, color, national origin, age, disability, or sex.

PCHP:

Provides free aids and services to people with disabilities to communicate effectively with us, such as:

- Qualified sign language interpreters
- Written information in other formats (large print, audio, accessible electronic formats, other formats)

Provides free language services to people whose primary language is not English, such as:

- Qualified interpreters
- Information written in other languages

If you need these services, contact a Grievance Specialist.

If you believe that PCHP has failed to provide these services or discriminated in another way on the basis of race, color, national origin, age, disability, or sex, you can file a grievance with:

Grievance Specialist
PreferredOne Community Health Plan
PO Box 59052
Minneapolis, MN 55459-0052
Phone: 1.800.940.5049 (TTY: 763.847.4013)
Fax: 763.847.4010
customerservice@preferredone.com

You can file a grievance in person or by mail, fax, or email. If you need help filing a grievance, a Grievance Specialist is available to help you.

You can also file a civil rights complaint with the U.S. Department of Health and Human Services, Office for Civil Rights, electronically through the Office for Civil Rights Complaint Portal, available at <https://ocrportal.hhs.gov/ocr/portal/lobby.jsf>, or by mail or phone at:

U.S. Department of Health and Human Services
200 Independence Avenue, SW
Room 509F, HHH Building
Washington, D.C. 20201
1-800-368-1019, 800-537-7697 (TDD)

Complaint forms are available at <http://www.hhs.gov/ocr/office/file/index.html>.

Language Assistance Services

ATTENTION: If you do not speak English, language assistance services, free of charge, are available to you. Call 1.800.940.5049 (TTY: 763.847.4013).

ATENCIÓN: si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 1.800.940.5049 (TTY: 763.847.4013).

LUS CEEV: Yog tias koj hais lus Hmoob, cov kev pab txog lus, muaj kev pab dawb rau koj. Hu rau 1.800.940.5049 (TTY: 763.847.4013).

XIYYEEFFANNAA: Afaan dubbattu Oroomiffa, taiaailla qargaarsa afaanii, kanfaltiidhaan ala, ni argama. Bilbilaa 1.800.940.5049 (TTY: 763.847.4013).

CHÚ Ý: Nếu bạn nói Tiếng Việt, có các dịch vụ hỗ trợ ngôn ngữ miễn phí dành cho bạn. Gọi số 1.800.940.5049 (TTY: 763.847.4013).

注意：如果您使用繁體中文，您可以免費獲得語言援助服務。請致電 1.800.940.5049 (TTY: 763.847.4013)。

ВНИМАНИЕ: Если вы говорите на русском языке, то вам доступны бесплатные услуги перевода. Звоните 1.800.940.5049 (телетайп: 763.847.4013).

ໂບດລູກ: ຖ້າວ່າທ່ານເຮົາພາສາລາວ, ການບໍລິການຊ່ວຍເຫຼືອດ້ານພາສາ, ໂດຍບໍ່ເສຍຄ່າ, ແມ່ນມີພ້ອມໃຫ້ທ່ານ. ໂທ 1.800.940.5049 (TTY: 763.847.4013).

ማስታወሻ: የሚናገሩት ቋንቋ አማርኛ ከሆነ የትርጉም እርዳታ ድርጅቶች፣ በነጻ ሊያግዝዎት ተዘጋጅተዋል፡ ወደ ሚከተለው ቁጥር ይደውሉ 1.800.940.5049 (መስማት ለተሳናቸው፡ 763.847.4013) .

ဟ်သ့ဟ်သး- နမာ်ကတိ၊ ကညီ ကိုက်အယံ၊ နမာ် ကိုက်အတၢ်မၤစၢၤလၢ တလၢ်ဘျၣ်လၢ်စၢၤ နီတမံၤဘၣ်သ့န့ၣ်လီၤ. ကိ: 1.800.940.5049 (TTY: 763.847.4013).

ACHTUNG: Wenn Sie Deutsch sprechen, stehen Ihnen kostenlos sprachliche Hilfsdienstleistungen zur Verfügung. Rufnummer: 1.800.940.5049 (TTY: 763.847.4013).

ប្រយ័ត្ន៖ បើសិនជាអ្នកនិយាយ ភាសាខ្មែរ សេវាជំនួយផ្នែកភាសា ដោយមិនគិតល្បួល គឺអាចមានសំរាប់បំរើអ្នក។ ចុះ ទូរស័ព្ទ 1.800.940.5049 (TTY: 763.847.4013)។

ملحوظة: إذا كنت تتحدث اذكر اللغة، فإن خدمات المساعدة اللغوية تتوافر لك بالمجان. اتصل برقم 1.800.940.5049 (رقم هاتف الصم والبكم: 763.847.4013).

ATTENTION : Si vous parlez français, des services d'aide linguistique vous sont proposés gratuitement. Appelez le 1.800.940.5049 (TTY: 763.847.4013).

주의: 한국어를 사용하시는 경우, 언어 지원 서비스를 무료로 이용하실 수 있습니다. 1.800.940.5049 (TTY: 763.847.4013), 번으로 전화해 주십시오.

PAUNAWA: Kung nagsasalita ka ng Tagalog, maaari kang gumamit ng mga serbisyo ng tulong sa wika nang walang bayad. Tumawag sa 1.800.940.5049 (TTY: 763.847.4013).

PreferredOne Insurance Company Nondiscrimination Notice

PreferredOne Insurance Company ("PIC") complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex. PIC does not exclude people or treat them differently because of race, color, national origin, age, disability, or sex.

PIC:

Provides free aids and services to people with disabilities to communicate effectively with us, such as:

- Qualified sign language interpreters
- Written information in other formats (large print, audio, accessible electronic formats, other formats)

Provides free language services to people whose primary language is not English, such as:

- Qualified interpreters
- Information written in other languages

If you need these services, contact a Grievance Specialist.

If you believe that PIC has failed to provide these services or discriminated in another way on the basis of race, color, national origin, age, disability, or sex, you can file a grievance with:

Grievance Specialist
PreferredOne Insurance Company
PO Box 59212
Minneapolis, MN 55459-0212
Phone: 1.800.940.5049 (TTY: 763.847.4013)
Fax: 763.847.4010
customerservice@preferredone.com

You can file a grievance in person or by mail, fax, or email. If you need help filing a grievance, a Grievance Specialist is available to help you.

You can also file a civil rights complaint with the U.S. Department of Health and Human Services, Office for Civil Rights, electronically through the Office for Civil Rights Complaint Portal, available at <https://ocrportal.hhs.gov/ocr/portal/lobby.jsf>, or by mail or phone at:

U.S. Department of Health and Human Services
200 Independence Avenue, SW
Room 509F, HHH Building
Washington, D.C. 20201
1-800-368-1019, 800-537-7697 (TDD)

Complaint forms are available at <http://www.hhs.gov/ocr/office/file/index.html>.

Language Assistance Services

ATTENTION: If you do not speak English, language assistance services, free of charge, are available to you. Call 1.800.940.5049 (TTY: 763.847.4013).

ATENCIÓN: si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 1.800.940.5049 (TTY: 763.847.4013).

LUS CEEV: Yog tias koj hais lus Hmoob, cov kev pab txog lus, muaj kev pab dawb rau koj. Hu rau 1.800.940.5049 (TTY: 763.847.4013).

XIYEEFFANNAA: Afaan dubbattu Oroomiffa, tajaajila gargaarsa afaanii, kanfaltiidhaan ala, ni argama. Bilbilaa 1.800.940.5049 (TTY: 763.847.4013).

CHÚ Ý: Nếu bạn nói Tiếng Việt, có các dịch vụ hỗ trợ ngôn ngữ miễn phí dành cho bạn. Gọi số 1.800.940.5049 (TTY: 763.847.4013).

注意：如果您使用繁體中文，您可以免費獲得語言援助服務。請致電 1.800.940.5049 (TTY: 763.847.4013)。

ВНИМАНИЕ: Если вы говорите на русском языке, то вам доступны бесплатные услуги перевода. Звоните 1.800.940.5049 (телетайп: 763.847.4013).

បំពេញ: ប្រសិនបើ អ្នកនិយាយភាសាខ្មែរ, សេវាជំនួយភាសា ដោយមិនគិតថ្លៃ គឺអាចមានសំរាប់អ្នក។ ហៅ 1.800.940.5049 (TTY: 763.847.4013).

ማስታወሻ: የሚናገሩት ቋንቋ አማርኛ ከሆነ የትርጉም እርዳታ ድርጅቶች፡ በነጻ ሊያገኙበት ተዘጋጅተዋል፡ ወደ ሚከተለው ቁጥር ይደውሉ 1.800.940.5049 (ማስማት ለተሳናቸው: 763.847.4013) .

ဟံသာဝတီ: နမူနာတို့ ကညီ ကျိအသိ, နမူနာ ကျိအတိအကျတို့ တလက်ကွက်လက်စွာ နှိတ်မိသည့်သို့လိ။ ကိ: 1.800.940.5049 (TTY: 763.847.4013).

ACHTUNG: Wenn Sie Deutsch sprechen, stehen Ihnen kostenlos sprachliche Hilfsdienstleistungen zur Verfügung. Rufnummer: 1.800.940.5049 (TTY: 763.847.4013).

ប្រយ័ត្ន: បើសិនជាអ្នកនិយាយភាសាខ្មែរ, សេវាជំនួយភាសា ដោយមិនគិតថ្លៃ គឺអាចមានសំរាប់អ្នក។ ហៅ 1.800.940.5049 (TTY: 763.847.4013).

ملحوظة: إذا كنت تتحدث اذكر اللغة، فإن خدمات المساعدة اللغوية تتوافر لك بالمجان. اتصل برقم 1.800.940.5049 (رقم هاتف الصم والبكم: 763.847.4013).

ATTENTION : Si vous parlez français, des services d'aide linguistique vous sont proposés gratuitement. Appelez le 1.800.940.5049 (TTY: 763.847.4013).

주의: 한국어를 사용하시는 경우, 언어 지원 서비스를 무료로 이용하실 수 있습니다. 1.800.940.5049 (TTY: 763.847.4013). 번으로 전화해 주십시오.

PAUNAWA: Kung nagsasalita ka ng Tagalog, maaari kang gumamit ng mga serbisyo ng tulong sa wika nang walang bayad. Tumawag sa 1.800.940.5049 (TTY: 763.847.4013).