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CONCERT INFECTIOUS DISEASE: DERMATOLOGIC TESTING

See [Important Reminder](#) at the end of this policy for important regulatory and legal information.

OVERVIEW

This policy addresses the use of tests for fungal infection of the nails (onychomycosis), which can sometimes affect surrounding skin. These criteria are intended for use in the outpatient setting.

For additional information see the [Background and Rationale](#) section.

The tests, CPT codes, and ICD codes referenced in this policy are not comprehensive, and their inclusion does not represent a guarantee of coverage or non-coverage.

POLICY REFERENCE TABLE

Criteria Sections	Example Tests (Labs)	Support
ONYCHOMYCOSIS (NAIL FUNGUS) TESTS		
Microscopy/Peroxidase Tests for Onychomycosis	Fungus Stain (LabCorp)	Rationale/References
	KOH Prep (Pacific Medical)	
Fungal Culture for Onychomycosis	Culture, Fungus, Miscellaneous (Quest Diagnostics)	Rationale/References
	Fungus (Mycology) Culture/Dermatophyte Culture	

	(LabCorp)	
	Fungal Isolate Identification (Quest Diagnostics)	
Culture-Independent Molecular Tests (NAAT/PCR) for Onychomycosis	Nail-ID (Vikor Scientific)	Rationale/References

CRITERIA

It is the policy of health plans affiliated with Centene Corporation® that the specific tests noted below are **medically necessary** when meeting the related criteria:

ONYCHOMYCOSIS (NAIL FUNGUS) TESTS

Microscopy/Peroxidase Tests for Onychomycosis

- I. Microscopy/oxidase tests for onychomycosis are considered **medically necessary** when:
 - A. The member/enrollee shows signs or symptoms of onychomycosis (e.g., nails that are discolored, deformed, brittle, and/or foul-smelling; subungual debris; separation of the nail from the nail bed), **AND**
 - B. Results of testing would influence the member/enrollee’s clinical management.
- II. Current evidence does not support the use of microscopy/oxidase tests for onychomycosis for all other indications.

Fungal Culture for Onychomycosis

- I. Fungal culture for onychomycosis (presumptive and/or definitive) are considered **medically necessary** when:
 - A. The member/enrollee shows signs or symptoms of onychomycosis (e.g., nails that are discolored, deformed, brittle, and/or foul-smelling; subungual debris; separation of the nail from the nail bed), **AND**
 - B. Results of testing would influence the member/enrollee’s clinical management.

- II. Current evidence does not support the use of fungal culture for onychomycosis (presumptive and/or definitive) for all other indications.

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Culture-Independent Molecular Tests (NAAT/PCR) for Onychomycosis

- I. Culture-independent molecular tests (NAAT/PCR) for onychomycosis are considered medically necessary when:
 - A. The member/enrollee shows signs or symptoms of onychomycosis (e.g., nails that are discolored, deformed, brittle, and/or foul-smelling; subungual debris; separation of the nail from the nail bed), **AND**
 - B. Conventional diagnostic techniques (microscopy/peroxidase tests and /or fungal culture) were inconclusive, **AND**
 - C. Results of testing would influence the member/enrollee’s clinical management.
- II. Current evidence does not support the use of culture-independent molecular tests (NAAT/PCR) for onychomycosis for all other indications.

BACKGROUND AND RATIONALE

Microscopy/Peroxidase Tests for Onychomycosis

Nenoff, et al.

A 2022 publication from a multidisciplinary committee including representatives from several organizations, including the German Society of Dermatology (DDG), the German-Speaking Mycological Society (DMyKG), the Association of German Dermatologists (BVDD), the German Society for Hygiene and Microbiology (DGHM), the German Society of Pediatric and Adolescent Medicine (DGKJ), the Working Group for Pediatric Dermatology (APD) and the German Society for Pediatric Infectious Diseases (DGPI) address diagnosis and treatment of onychomycosis.

This guideline recommends direct examination via microscopy for the diagnosis of onychomycosis (p. 683). They also state that molecular confirmation of “dermatophyte DNA in the nail material significantly increases the diagnostic sensitivity and greatly shortens the time to the start of targeted treatment” (p. 683).

Nenoff P, Reinel D, Mayser P, et al. S1 Guideline onychomycosis. Journal der Deutschen Dermatologischen Gesellschaft. 2023;21(6):678-692. doi:10.1111/ddg.14988

American Academy of Family Physicians (AAFP)

In their 2021 rapid evidence review of onychomycosis, the AAFP listed the common signs and symptoms of onychomycosis, including: nails that are discolored, deformed, hypertrophic, or hyperkeratotic; subungual debris; separation from the nail bed; brittle nails that break easily or crumble; and nails that are foul smelling (p. 360). They continue on to say that onychomycosis “can have significant impact on quality of life and will progress if left untreated”, and present multiple treatment options to consider, such as oral, topical, or surgical therapy as well as new treatments (p. 361).

Frazier WT, Santiago-Delgado ZM, Stupka KC 2nd. Onychomycosis: Rapid Evidence Review. *Am Fam Physician*. 2021;104(4):359-367.

Fungal Culture for Onychomycosis

Nenoff, et al.

A 2022 publication from a multidisciplinary committee including representatives from several organizations, including the German Society of Dermatology (DDG), the German-Speaking Mycological Society (DMyKG), the Association of German Dermatologists (BVDD), the German Society for Hygiene and Microbiology (DGHM), the German Society of Pediatric and Adolescent Medicine (DGKJ), the Working Group for Pediatric Dermatology (APD) and the German Society for Pediatric Infectious Diseases (DGPI) addresses diagnosis and treatment of onychomycosis. This guideline recommends fungal culture for the identification of the pathogen causing the onychomycosis (p. 685).

Nenoff P, Reinell D, Mayser P, et al. S1 Guideline onychomycosis. *Journal der Deutschen Dermatologischen Gesellschaft*. 2023;21(6):678-692. doi:10.1111/ddg.14988

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Frazier WT, Santiago-Delgado ZM, Stupka KC 2nd. Onychomycosis: Rapid Evidence Review. *Am Fam Physician*. 2021;104(4):359-367.

Culture-Independent Molecular Tests (NAAT/PCR) for Onychomycosis

Nenoff, et al.

A 2022 publication from a multidisciplinary committee including representatives from several organizations, including the German Society of Dermatology (DDG), the German-Speaking Mycological Society (DMYkG), the Association of German Dermatologists (BVDD), the German Society for Hygiene and Microbiology (DGHM), the German Society of Pediatric and Adolescent Medicine (DGKJ), the Working Group for Pediatric Dermatology (APD) and the German Society for Pediatric Infectious Diseases (DGPI) addresses diagnosis and treatment of onychomycosis. This guideline states that, while fungal culture is recommended as the primary diagnostic tool for onychomycosis, it may be necessary to utilize molecular diagnostic methods when those conventional methods fail to identify a responsible pathogen (p. 685). This guideline also notes that, although PCR methods of testing are much more sensitive, they should be used as supplement to those conventional methods (p. 686).

Nenoff P, Reinell D, Mayser P, et al. S1 Guideline onychomycosis. *Journal der Deutschen Dermatologischen Gesellschaft*. 2023;21(6):678-692. doi:10.1111/ddg.14988

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In their 2021 rapid evidence review of onychomycosis, the AAFP listed the common signs and symptoms of onychomycosis, including: nails that are discolored, deformed, hypertrophic, or hyperkeratotic; subungual debris; separation from the nail bed; brittle nails that break easily or crumble; and nails that are foul smelling (p. 360).

In this same review, the AAFP states the following:

“A potassium hydroxide (KOH) preparation with direct microscopy is the preferred diagnostic method [for onychomycosis] because it is highly specific, has rapid results, and is cost-effective. Diagnosis by KOH preparation alone is sufficient for treatment initiation. However, if KOH results are negative and there is high clinical suspicion for onychomycosis, other testing may be performed to confirm the diagnosis” (p. 361). They continue on to say that onychomycosis “can have a significant impact on quality of life and will progress if left untreated,” and present multiple treatment options to consider, such as oral, topical, or surgical therapy as well as new treatments (p. 361).

Frazier WT, Santiago-Delgado ZM, Stupka KC 2nd. Onychomycosis: Rapid Evidence Review. *Am Fam Physician*. 2021;104(4):359-367.

Coding Implications

This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2025, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not

guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

CPT [®] Codes	Description
86485	Skin test; Candida
87101	Culture, fungi (mold or yeast) isolation, with presumptive identification of isolates; skin, hair, or nail
87102	Culture, fungi (mold or yeast) isolation, with presumptive identification of isolates; other source (except blood)
87106	Culture, fungi, definitive identification, each organism; yeast
87107	Culture, fungi, definitive identification, each organism; mold
87143	Culture, typing; gas liquid chromatography (GLC) or high pressure liquid chromatography (HPLC) method
87147	Culture, typing; immunologic method, other than immunofluorescence (eg, agglutination grouping), per antiserum
87149	Culture, typing; identification by nucleic acid (DNA or RNA) probe, direct probe technique, per culture or isolate, each organism probed
87150	Culture, typing; identification by nucleic acid (DNA or RNA) probe, amplified probe technique, per culture or isolate, each organism probed
87181	Susceptibility studies, antimicrobial agent; agar dilution method, per agent (ag, antibiotic gradient strip)
87184	Susceptibility studies, antimicrobial agent; disk method, per plate (12 or fewer agents)
87185	Susceptibility studies, antimicrobial agent; enzyme detection (eg, beta lactamase), per enzyme
87186	"Susceptibility studies, antimicrobial agent; microdilution or agar dilution (minimum inhibitory concentration [MIC] or breakpoint), each multi-antimicrobial, per plate
87187	Susceptibility studies, antimicrobial agent; microdilution or agar dilution, minimum lethal concentration (MLC), each plate
87188	Susceptibility studies, antimicrobial agent; macrobroth dilution method, each agent
87206	Smear, primary source with interpretation; fluorescent and/or acid fast stain for bacteria, fungi, parasites, viruses or cell types
87220	Tissue examination by KOH slide of samples from skin, hair, or nails for fungi or ectoparasite ova or mites (eg, scabies)
87430	Infectious agent antigen detection by immunoassay technique, (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]) qualitative or semiquantitative; Streptococcus, group A
87480	Infectious agent detection by nucleic acid (DNA or RNA); Candida species, direct probe technique

87481	Infectious agent detection by nucleic acid (DNA or RNA); Candida species, amplified probe technique
87482	Infectious agent detection by nucleic acid (DNA or RNA); Candida species, quantification
87500	Infectious agent detection by nucleic acid (DNA or RNA); vancomycin resistance (eg, enterococcus species van A, van B), amplified probe technique
87640	Infectious agent detection by nucleic acid (DNA or RNA); Staphylococcus aureus, amplified probe technique
87641	Infectious agent detection by nucleic acid (DNA or RNA); Staphylococcus aureus, methicillin resistant, amplified probe technique
87650	Infectious agent detection by nucleic acid (DNA or RNA); Streptococcus, group A, direct probe technique
87651	Infectious agent detection by nucleic acid (DNA or RNA); Streptococcus, group A, amplified probe technique
87652	Infectious agent detection by nucleic acid (DNA or RNA); Streptococcus, group A, quantification
87653	Infectious agent detection by nucleic acid (DNA or RNA); Streptococcus, group B, amplified probe technique
87798	Infectious agent detection by nucleic acid (DNA or RNA), not otherwise specified; amplified probe technique, each organism
87799	Infectious agent detection by nucleic acid (DNA or RNA), not otherwise specified; quantification, each organism
87801	Infectious agent detection by nucleic acid (DNA or RNA), multiple organisms; amplified probe(s) technique
0600U	Infectious disease (wound infection), identification of 65 organisms and 30 antibiotic resistance genes, wound swab, real-time PCR, reported as positive or negative for each organism

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Reviews, Revisions, and Approvals	Revision Date	Approval Date
Policy developed. Reviewed by external specialist.	11/23	02/24
Added “Lab” to policy title. Removed CPT and ICD-10 codes from policy reference table. Added CPT code table and moved the “coding implications” section.	02/24	
Corrected CPT codes descriptions in CPT code table.	03/24	

Annual review. Added policy number to header. For Fungal Culture for Onychomycosis and Microscopy/Peroxidase Tests for Onychomycosis, reworded policy statements from “may be considered medically necessary” to “are considered medically necessary.”	11/24	2/25
Annual review. Added medically necessary indications for Culture-Independent Molecular Tests for Onychomycosis; Updated background and rationale for Microscopy/Peroxidase Tests for Onychomycosis, Fungal Culture for Onychomycosis, and Culture-Independent Molecular Tests (NAAT/PCR) for Onychomycosis; Added CPT codes 86485, 87181, 87184, 87185, 87186, 87187, 87188, 87430 and 0600U. Deleted CPT code 87800. Removed Ref column and added reference links to policy reference table.	1/26	1/26

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies

may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members/enrollees. This clinical policy is not intended to recommend treatment for members/enrollees. Members/enrollees should consult with their treating physician in connection with diagnosis and treatment decisions.

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Note: For Medicaid members/enrollees, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Note: For Medicare members/enrollees, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at <http://www.cms.gov> for additional information.

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