

# Bacterial, Viral, and Fungal Testing of Oral Infections

**Guideline Number:** DCG039.10  
**Effective Date:** December 1, 2024

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Related Dental Policies
None

## Coverage Rationale

### Collection of Microorganisms for Culture and Sensitivity

**Collection of microorganisms for culture and sensitivity is indicated for the following:**

- For infections of the oral cavity that do not respond to antibiotic therapy and/or incision and drainage in a timely manner
- For infections of the oral cavity in patients with the following:
  - Individuals with an unmanaged medical condition; these conditions include but are not limited to metabolic, cardiovascular, and autoimmune/inflammatory, as well as genetic conditions that affect collagen synthesis
  - Individuals taking medications that negatively affects the healing response; these include but are not limited to immunosuppressive agents, corticosteroids, anticoagulants, NSAIDS, and nicotine
  - Individuals with a compromised immune system; conditions/procedures include but are not limited to HIV/AIDS, solid organ and stem cell transplant, cancer, chemotherapy, select blood dyscrasias, chronic kidney disease, or dialysis
- For patients with severe or prolonged infection

**Collection of microorganisms for culture and sensitivity is not indicated for the following:**

- As a routine procedure for all infections
- If infection is small and limited to localized area
- If infection is draining on its own with no evidence of spread of infection
- For fungal infections unless there has been no response to antifungal treatment

### Viral Culture

**Viral culturing is indicated for the presence of oral and perioral vesicles and ruptured vesicles.**

**Viral culturing is not indicated for suspected cytomegalovirus (CMV) oral lesions.**

## Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this guideline does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

CDT Code	Description
D0414	Laboratory processing of microbial specimen to include culture and sensitivity studies, preparation and transmission of written report
D0415	Collection of microorganisms for culture and sensitivity
D0416	Viral culture

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## Description of Services

There are many diagnostic tests available for bacterial and viral infections presenting in the oral cavity. Viral testing includes but is not limited to varicella-zoster, herpes simplex, hand-foot-and-mouth disease, herpangina and measles (rubeola). Bacterial infections may involve individual teeth and surrounding tissues or affect the oral mucosa. Bacterial testing isolates specific pathogens, and the results can be used to guide treatment decisions. This is particularly true when infections have been resistant to previous treatment, or the infection is serious or prolonged. Testing for fungal infections does not typically provide useful information, as candida albicans is a part of the normal oral flora, and the clinical presentation of most types is itself diagnostic. However definitive testing may be appropriate for immunocompromised patients, or if there is no response to antifungal treatment.

Pursuant to CA AB2585: While not common in dentistry, nonpharmacological pain management strategies should be encouraged if appropriate.

## References

- Bagheri, S. Clinical Review of Oral and Maxillofacial Surgery, 2nd ed. St. Louis: Mosby c2014. Chapter 4, Oral and Maxillofacial Infections; p. 95-118.
- Blijlevens N, van der Velden, W. Mandell. Douglas and Bennett's Principles and Practice of Infectious Diseases, 9th ed. Elsevier c2020. Chapter 305 Infections in the Immunocompromised Host: General Principles; p.3617.
- Cohen-Poradosu R, Kasper, D. Mandell. Douglas and Bennett's Principles and Practice of Infectious Diseases, 9th ed. Elsevier c2020. Chapter 242 Anaerobic Infections: General Concepts; p.2930.
- Kerr A, Miller C, Nelson R. Little and Falace's Dental Management of the Medically Compromised Patient, 10th ed. St. Louis: Elsevier c2024. Chapter 1, Patient Evaluation, Risk Assessment and the Diagnostic Process; p. 1-17.
- Rajendra Santosh AB, Muddana K, Bakki SR. Fungal infections of oral cavity: diagnosis, management, and association with COVID-19. SN Compr Clin Med. 2021;3(6):1373-1384. doi: 10.1007/s42399-021-00873-9.

## Guideline History/Revision Information

Date	Summary of Changes
12/01/2024	<p><b>Coverage Rationale</b></p> <ul style="list-style-type: none"> <li>Replaced language stating “collection of microorganisms for culture and sensitivity is indicated for patients with <i>comorbidities including but not limited to impaired</i> healing response and compromised immune system” with “collection of microorganisms for culture and sensitivity is indicated for infections of the oral cavity in patients: <ul style="list-style-type: none"> <li>With an unmanaged medical condition; these conditions include but are not limited to metabolic, cardiovascular, and autoimmune/inflammatory, as well as genetic conditions that affect collagen synthesis</li> <li>[Who are] taking medications that negatively affect the healing response; these include but are not limited to immunosuppressive agents, corticosteroids, anticoagulants, NSAIDs, and nicotine</li> <li>With a compromised immune system; conditions/procedures include but are not limited to HIV/AIDS, solid organ and stem cell transplant, cancer, chemotherapy, select blood dyscrasias, chronic kidney disease, or dialysis”</li> </ul> </li> </ul> <p><b>Supporting Information</b></p> <ul style="list-style-type: none"> <li>Updated <i>References</i> section to reflect the most current information</li> <li>Archived previous policy version DCG039.09</li> </ul>

## Instructions for Use

This Dental Coverage Guideline provides assistance in interpreting UnitedHealthcare standard and Medicare Advantage dental plans. When deciding coverage, the member specific benefit plan document must be referenced as the terms of the member specific benefit plan may differ from the standard dental plan. In the event of a conflict, the member specific benefit plan document governs. Before using this guideline, please check the member specific benefit plan document and any applicable federal or state mandates. UnitedHealthcare reserves the right to modify its Policies and Guidelines as necessary. This Dental Coverage Guideline is provided for informational purposes. It does not constitute medical advice.