Treatment of Confirmed Candidemia

**Guideline Goal:**
Assist in optimizing the management of candidemia by guiding appropriate consultation and radiographic ordering, as well as effective antibiotic selection/duration.

**Blood Culture Drawn**

- **Confirmed Candidemia**
  - Detect yeast consistent with *Candida* on Gram Stain.
  - Inoculate positive blood culture on media.

**Key Points:**
- Accurate diagnosis of candidemia and associated complications
- Appropriate consultation in the presence of confirmed candidemia
- Aid in effective and appropriate antifungal selection

- Remove IV catheter.
- Obtain Infectious Diseases and Ophthalmology Consultations.
- Obtain echocardiogram.
- Immediately begin caspofungin IV (loading dose 70 mg, then 50 mg daily).
  - If severe hepatic dysfunction (Child-Pugh Score 7-9), caspofungin IV (loading dose 70 mg, then 35 mg daily).
    - See page 2 for Criteria for Child-Pugh Classification.
  - If endocarditis confirmed, consider high dose caspofungin (150 mg daily)
  - Liposomal Amphotericin B 3-5 mg/kg IV daily should be considered as an alternative to caspofungin in patients with suspected *C. glabrata*, critical illness, or septic shock.
    - Patients with a history of infection or colonization with *C. glabrata*, elderly patients and those with cancer or diabetes may be at risk of *C. glabrata* infection.

**Matrix-Assisted Laser Desorption / Ionization – Time of Flight (MALDI-TOF) performed once growth of yeast on media has occurred (24-96 hours).**

- *C. albicans*
- Continue caspofungin until susceptibilities are available.

- *C. parapsilosis*
- Continue caspofungin until susceptibilities are available.

- *C. dubliniensis*
- Continue caspofungin until susceptibilities are available.

- *C. tropicalis*
- Continue caspofungin until susceptibilities are available.

- Other species
- Based on local OSUWMC susceptibilities, switching to fluconazole may be considered empirically if patient is clinically stable and does not have a significant prior history of azole exposure.
- Fluconazole MIC ≤ 4.
  - Load fluconazole 800 mg IV/PO (12 mg/kg) x 1, then maintenance 400 mg (6 mg/kg) q24 hours.**
    - **ESRD or HD:** Fluconazole IV/PO (dose adjustment may be considered).**
    - **CRRT:** Fluconazole IV/PO (loading dose 800 mg [12 mg/kg], then 400 mg [6 mg/kg] q12 hours).**
- Fluconazole MIC ≥ 8, continue caspofungin.

- *C. glabrata*
- Continue caspofungin until susceptibilities are available.

- *C. krusei*
- Continue caspofungin

**Fluconazole MIC ≤ 8.**
- Consider switching to fluconazole if patient is clinically stable.
  - Load fluconazole IV/PO 800 mg (12 mg/kg) x 1, then maintenance 400 mg (6 mg/kg) q24 hours.**
    - **ESRD or HD:** Fluconazole IV/PO (dose adjustment may be considered).**
    - **CRRT:** Fluconazole IV/PO (loading dose 800 mg [12 mg/kg], then 400 mg [6 mg/kg] q12 hours).**
- Fluconazole MIC = 16, consider switch to fluconazole if patient is clinically stable.
  - Fluconazole IV/PO loading dose 1600 mg, then 800 mg q24 hours.**
- Fluconazole MIC ≥ 32, continue caspofungin.

*An Infectious Diseases Consultation should be considered to assist in determining the appropriate duration of therapy. The recommended duration of therapy for candidemia with IV catheter removal and without metastatic complications (i.e., endophthalmitis, endocarditis) is at least 2 weeks from the first documented negative blood culture with resolution of symptoms.

**Oral fluconazole therapy is preferred. Larger doses of fluconazole may be necessary in obesity. Doses should be rounded to nearest 200 mg. For additional dosing assistance or questions, contact a member of the Antimicrobial Stewardship Program.

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Criteria for Child-Pugh Classification

<table>
<thead>
<tr>
<th>Clinical and Biochemical Measurements</th>
<th>Grade A = 5-6</th>
<th>Grade B = 7-9</th>
<th>Grade C = 10-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Points Scored for Increasing Abnormality</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>Hepatic encephalopathy (grade)*</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>Ascites</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>Total bilirubin (mg/dl)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Serum albumin (g/dl)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Prothrombin time (sec. prolonged) or Prothrombin time INR</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

*According to grading of Trey, Burns, and Saunders (1996)

Source: University of Washington Medical Center

References


Disclaimer: Clinical practice guidelines and algorithms at The Ohio State University Wexner Medical Center (OSUWMC) are standards that are intended to provide general guidance to clinicians. Patient choice and clinician judgment must remain central to the selection of diagnostic tests and therapy. OSUWMC's guidelines and algorithms are reviewed periodically for consistency with new evidence; however, new developments may not be represented.

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Quality Measures

- Mortality
- Length of stay

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Guideline Approved

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