

# Ask the Experts: Antifungal Stewardship from Diagnosis to Treatment and Beyond

This activity is located at: <http://symposia.ashp.org/lms/content/15-cem-ate-antifungal>

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## ASSESSMENT TEST



This assessment test has been provided as a study aid only. Follow the prompts at the end of the presentation to claim credit. Credit must be claimed within 60 days of completing the activity.

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There is a total of 10 questions on this test.

1. What species of *Candida* have been most commonly associated with echinocandin resistance?
  - a. *C. albicans*.
  - b. *C. glabrata*.
  - c. *C. tropicalis*.
  - d. *C. krusei*.
2. What has been shown to be the biggest predictor of echinocandin resistance in hospitalized patients?
  - a. Number of days of hospitalization.
  - b. Inappropriate duration central venous catheters.
  - c. Chronic use of total parenteral nutrition.
  - d. Previous use of echinocandin antifungals.
3. Which of the following rapid diagnostic tests is able to detect *Candida* species prior to identification of yeast in blood culture bottles?
  - a. PNA-FISH.
  - b. Germ-tube test.
  - c. MALDI-TOF.
  - d. T2 magnetic resonance.
4. Use of MALDI-TOF was shown to improve the time to possible stewardship interventions by which mechanism?
  - a. By directly decreasing the time until Gram-stain identification.
  - b. By directly decreasing the time until Species identification.
  - c. By directly decreasing the time until Antifungal susceptibility results.
  - d. By indirectly improving the blood culture technique.
5. PNA-Fish relies on what technology to provide a more rapid identification of *Candida* species.
  - a. Peptide nucleic acids bind preferentially to rRNA of target species.
  - b. Mass spectrometry allows for unique identification of targeted species.
  - c. Nanoparticle capture probes hybridize to DNA target species forming interparticle linkage.
  - d. Morphologic changes in growth allow species differentiation.

6. Which of the following statements about Candida bloodstream infections (BSIs) is MOST correct? Candida BSIs....
  - a. should always be treated with fluconazole, as it is cheap (generic) and has a good safety profile.
  - b. are associated with a low mortality rate, unless the patient is immunocompromised; thus, antifungal therapy is generally not necessary.
  - c. are most often caused by *Candida krusei*.
  - d. are associated with poor outcomes when initiation of antifungal therapy is delayed.
7. Which of the following statements regarding the treatment of candidemia is INCORRECT ?
  - a. Patients should receive IV therapy for the entire duration of antifungal therapy.
  - b. Intravenous (IV) catheters should be removed whenever possible.
  - c. The duration of therapy for candidemia in patients whose symptoms have resolved, and who have no metastatic complications, is two weeks after documented Candida clearance from the blood.
  - d. All candidemic patients should undergo an ophthalmological exam.
8. Which of the following statements regarding RESISTANCE to antifungals is INCORRECT?
  - a. Of commonly isolated Candida species, resistance to fluconazole is most common for *C. albicans*.
  - b. Of commonly isolated Candida species, resistance to fluconazole is most common for *C. glabrata*.
  - c. Resistance to echinocandins, while less common than for azoles, is increasing.
  - d. Risk factors for echinocandin resistance include prior echinocandin therapy.
9. Candida blood cultures, when tested by 'traditional' methodology (i.e., without the use of rapid diagnostic tests), are:
  - a. Usually reported as 'positive' within 2 hours after obtaining a blood culture, so empiric therapy can be initiated on the same day.
  - b. Not usually reported as 'positive' until 7-10 days after obtaining a blood culture, making the selection of empiric therapy difficult.
  - c. Usually reported as 'positive' within about 2.5 days after obtaining a blood culture; however, speciation and antifungal susceptibility testing generally require an additional 2-3 days.
  - d. Not usually reported as 'positive'.
10. Candida bloodstream infections (BSIs) are:
  - a. Most often caused by *C. tropicalis* or *C. krusei*.
  - b. Rarely caused by *C. glabrata*.
  - c. Most often caused by *C. albicans* and *C. krusei*.
  - d. Most often caused by *C. albicans*, and *C. glabrata*, or *C. parapsilosis*.