CANDIDAEMIA

Invasive candidiasis in the ICU · echinocandin first

ECHINO-
candin

MANAGEMENT PATHWAY

1. **Recognise risk factors**
2. **Blood cultures**
3. **Start echinocandin**
4. **REMOVE central line**
5. **Fundoscopy + repeat cultures**
6. **14 days from 1st negative**

SUSPECT WHEN

Persistent sepsis despite broad antibiotics PLUS risk factors:

central line + TPN · prolonged broad antibiotics · abdominal surgery / perforation · RRT · immunosuppression · multi-site Candida colonisation · prolonged ICU stay.

WORK-UP

- Blood cultures (low-yield); repeat daily to clearance
- β-D-glucan / T2 as an adjunct
- Dilated fundoscopy within the first week (endophthalmitis)
- Echo if persistent (endocarditis)

TREATMENT

echinocandin first-line - NOT fluconazole

Step	Agent & dose	Note
1 Echinocandin	Caspofungin 70 → 50 mg/day · micafungin 100 mg · anidulafungin 200 → 100 mg	First-line for all; covers C. glabrata / krusei
2 Step down	Fluconazole 400-800 mg (6 mg/kg)/day	After ≥ 5 d if stable, susceptible, cleared
Resistant species	C. glabrata / krusei → keep echinocandin; C. auris → isolate	Do NOT step down to an azole
Source control	REMOVE central venous catheters	Single most important intervention

MONITOR RESPONSE

- Repeat daily cultures; treat 14 d from first negative
- Fundoscopy + echo; look for metastatic seeding
- Step down by species once stable & cleared

NOT CLEARING?

- **Line still in -** REMOVE it - the key source
- **Endocarditis / thrombus -** echo; prolonged therapy ± surgery
- **Deep focus / eye -** endophthalmitis, abscess - image & treat longer

Why it matters: candidaemia carries ~40% mortality; delay in effective therapy worsens outcome. In persistent sepsis despite antibiotics + risk factors, start empirically.

SPECIES & DEEP SITES: C. albicans / parapsilosis → fluconazole-susceptible (step down) · C. glabrata → dose-dependent · C. krusei → fluconazole-resistant · C. auris → multidrug-resistant, isolate. Eye / CNS / endocarditis: echinocandins penetrate poorly → liposomal amphotericin or fluconazole.

PEARLS & PITFALLS

- Start an echinocandin, not fluconazole, for candidaemia in the ICU - then de-escalate by species.
- Get a dilated eye exam and repeat cultures; treat 14 days from the first negative culture.
- Remove the central line - it is the single most important step in clearing candidaemia.
- Persistent sepsis despite antibiotics with risk factors? Start antifungals empirically.

References: IDSA Candidiasis Guideline 2016 · ESCMID / ESICM invasive candidiasis · Surviving Sepsis Campaign 2021.

Educational aid; verify doses against local protocol and patient factors.