TARGETED ANTIFUNGAL AGENT SELECTION IN NON-HAEMATO-ONCOLOGY PATIENTS IN CRITICAL CARE



Proven invasive Candidiasis

OR

Yeast seen on Gram stain of Blood Culture or normally sterile fluid

- 1. Central venous catheters should be removed and re sited if still required.
- 2. Any other implicated prosthetic material (e.g. ureteric stent, biliary stent, V-P shunt) present at the time of blood culture must be removed unless contraindicated.
- 3. All patients require ophthalmology assessment.
- 4. Blood cultures should be repeated daily, or every other day, until negative.

DO ANY OF THE FOLLOWING APPLY?

- Septic/unstable patient with Candida isolate of unknown species Identification/susceptibility
- Blood culture/invasive infection due to an azole-resistant isolate within past 4 weeks
- Failure of fluconazole therapy within the past 4 weeks
- Currently colonised with fluconazole-resistant Candida species/Infection with C. glabrata of unknown fluconazole susceptibility
- Intolerance of or contraindication to (e.g. drug interaction) to fluconazole

NO

Candida species shown to be

Fluconazole IV

Loading dose

Either

Or

800mg on day 1

Maintenance dose

sensitive on testing

Fluconazole 400 mg day

dependent sensitivity

Fluconazole 800mg/day #

Candida species with dose-

Caspofungin IV*:

Loading dose

70mg on day 1

Maintenance dose (from day 2 onwards):

Weight ≤ 80 kg: 50 mg once daily

Weight > 80kg: 70mg once daily

Reduce dose if liver function impaired (for Child-Pugh score

7-9 give 35mg)

OR

AmBisome IV*

NB initial test dose 1mg over 10 min, stop infusion and observe patient, if no allergy, anaphylactoid reactions, continue. If allergic, anaphylactoid reactions stop immediately and do not continue

YES

Starting dose (in non-neutropenic patients)

1 mg/kg/day (as a single dose over 30-60 min) increasing to 3-5 mg/kg/day (5 mg/kg/day dose unlicensed, dose depending on response)

DURATION OF THERAPY

Candidaemia: at least 14 days after last positive Blood Culture. Candidaemia from a removable source: at least 14 days after removal of source

INVASIVE ASPERGILLOSIS

1st Line: Voriconazole 2nd Line: Ambisome® 3rd Line: Caspofungin

EXCLUSIONS

Candida species causing infective endocarditis, meningitis, septic arthritis, osteomyelitis, prosthetic device infections, renal tract candidiasis or retinitis/ endophthalmitis

All such presentations should be managed in discussion with an infection specialist.

PRACTICE POINTS

- *AmBisome® and *Caspofungin are ALERT antimicrobials. Please complete ALERT form and discuss with ID/ microbiology regarding appropriate choice of antifungal
- Always check BNF for dose adjustments, contraindications and drug interactions.
- Fluconazole requires QT monitoring/ caution with other drugs affecting QT
- Review daily and discuss IV to Oral switch timing, antifungal choice and dosing with microbiology
- #Unlicensed dose

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EMPIRICAL ANTIFUNGAL AGENT SELECTION IN NON-HAEMATO-ONCOLOGY PATIENTS IN CRITICAL CARE

EMPIRICAL ANTIFUNGAL THERAPY EMPIRICAL ANTIFUNGAL TREATMENT IN NON HAEMATO-ONCOLOGY PATIENTS SHOULD BE REVIEWED DAILY AND There is no clear evidence of improved outcomes with empirical antifungal DISCUSSED WITH AN INFECTION SPECIALIST therapy, however it may be considered where there is unresolving sepsis criteria, despite broad spectrum antibiotics and 2 or more high risk conditions. PRACTICE POINTS *AmBisome® and *Caspofungin are ALERT antimicrobials. Please complete ALERT form and **HIGH RISK CONDITIONS** discuss with ID/microbiology regarding appropriate GI Perforation Acute Renal Failure **Immunosupression** choice of antifungal. Always check BNF for dose adjustments, Prolonged ICU stay Alcoholism Anastomotic breakdown contraindications and drug interactions. **Acute Pancreatitis** Total Parenteral Nutrition Candida isolated from >2 sites Fluconazole requires QT monitoring/caution with Diabetes Multiple Antibiotic Courses other drugs affecting QT No growth of Candida Growth of Candida Mould Growth of Candida kruzei or (**not** *C. kruzei* or *C. glabrata*) from recent clinical/ C. Glabrata or organism non suspected screening cultures from recent clinical/ susceptible to fluconazole from screening cultures recent or past clinical/screening Consider whether to use Fluconazole 800mg on day 1 Caspofungin IV*: Voriconazole 400mg twice daily maintenance dose 400mg daily Loading dose, all patients 70mg on day 1 (oral/NG) or 6mg/kg IV in first 24 Maintenance dose (from day 2 onwards): hours then tailor dosing to renal Weight ≤ 80 kg: 50 mg once daily function. Weight > 80kg: 70mg once daily Reduce dose if liver function impaired Fluconazole or Itraconazole recently (for Child-Pugh score 7-9 give 35mg) Voriconazole prescribed, contraindicated or cautioned contraindicated or cautioned OR 🕹 AmBisome® IV* NB initial test dose 1mg over 10 min, stop infusion and observe patient, if no allergy, anaphylactoid reactions, continue. If allergic, anaphylactoid reactions stop immediately and do not continue Starting dose (in non-neutropenic patients) APPROVED AMT: SEPTEMBER 2017 1 mg/kg/day (as a single dose over 30-60 min) increasing to 3-5 mg/kg/day

(5 mg/kg/day dose unlicensed, dose depending on response)

APPROVED ADTC: OCTOBER 2017

REVIEW DATE: OCTOBER 2019