**Additional file: Selection of targeted antimicrobials by causative microorganism**

| Causative microorganism | Source of infection | Susceptibility results | Options | Alternatives | Remarks |
|---|---|---|---|---|---|
| **Gram-positive cocci in clusters [GPC in clusters]** | | | | | |
| *Staphylococcus aureus* | Catheter-related bloodstream infection, vertebral osteomyelitis / septic arthritis / iliopsoas abscess, native valve endocarditis (without intracranial dissemination), pneumonia | MSSA (PCG: S & CEZ: S)<br>* When determining "PCG: S", non-producer of penicillinase must be confirmed. | PCG 4,000,000 units, every 4–6 h [1-3] or ABPC 2g, every 4-6 h [4]<br>(endocarditis: every 4 h; other: every 4–6 h) | CEZ | |
| | | MSSA (PCG: R & CEZ: S) | CEZ 2g, every 8 h [4-6] | | Concomitant use of GM is not recommended [5] |
| | | MRSA (CEZ: R & VCM: S) | VCM initial dose 25–30 mg/kg and subsequent doses 15–20 mg/kg, every 12 h [4-9] | DAP (excluding pneumonia) or TEIC or LZD [4, 5, 8, 9] | Target AUC value for VCM is 400-600 μg・h/mL[i] |
| | Native valve endocarditis (with intracranial dissemination), post-operative meningitis (including cerebrospinal fluid shunt infection) | MSSA (PCG: S & CEZ: S)<br>*When determining "PCG: S", non-producer of penicillinase must be confirmed. | PCG 4,000,000 units, every 4–6 h [1-3] or ABPC 2g, every 4-6 h [4]<br>(endocarditis: every 4 h; other: every 4–6 h) | Avoid CEZ | |
| | | MSSA (CEZ: S) | CTRX 2g, every 12 h or CFPM 2g , every 8h or MEPM 2g, every 8 h [5,10] | Avoid CEZ | CTX is suggested in ESC 2015 [6] |
| | | MRSA (CEZ: R & VCM: S) | VCM initial dose 25–30 mg/kg and subsequent doses 15–20 mg/kg, every 12 h [4-9] | DAP or TEIC or LZD [5, 8, 9] | Target AUC value for VCM is 400-600 μg・h/mL[i]. VCM+RFP (optionally, in BSAC 2012 [11]) |
| | Prosthetic valve endocarditis | GM: S & RFP: S | Each regimen of native valve endocarditis (mentioned above) + GM 2–3 mg/kg, every 24 h ± oral RFP 600 mg once a day (combination of three drugs)[5-7, 9] | | |
| | | GM: R, AMK or LVFX: S | Use AMK or LVFX instead of GM | | Concomitant use of GM for 2 weeks. Target GM levels: 3–5 μg/mL at peak, less than 1 μg/mL at trough [5,8]. See section on "Coagulase Negative *Staphylococcus* (CNS)" (see next section) for RFP addition |
| | Toxic shock | CLDM: S | Consider adding CLDM 600 mg, every 8 h [12] for above anti-staphylococcal regimen | | |

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| | syndrome | CLDM: R & LZD: S | Consider adding CLDM 600 mg, every 8 h or LZD 600 mg, every 12 h [12] for above anti-staphylococcal regimen | | CLDM is used for toxin production suppression even when susceptibility is "resistant" [13]. |
| Coagulase-Negative Staphylococci (CNS) | Catheter-related bloodstream infections, prosthetic valve endocarditis, prosthetic joint infection | ・Susceptibility-based selection is similar with that for *Staphylococcus aureus*. → see section on "*Staphylococcus aureus*" (above).<br>・RFP can be considered when prosthetic valve or joint is preserved. → RFP should not use solely due to rapid development of resistance. There is expert opinion on avoiding its use when there is a large quantity of bacteria. Susceptibility test results serve as a reference [4-7]. | | | |
| **Gram-positive cocci in chains [GPC in chains]** | | | | | |
| *Streptococcus pneumoniae*<br>*Note that PCG susceptibility criteria differ for meningitis and non-meningitis | Other than meningitis (e.g., pneumonia) | PCG: S (MIC ≦ 2μg/mL) | PCG 2,000,000 units, every 4 h or ABPC 2 g, every 6–8 h [4]<br>(PCG 4,000,000 units, every 4 h or ABPC 2 g, every 4 h for endocarditis/invasive infection) | CTRX | |
| | | PCG : I or R (MIC ≧ 4μg/mL) | CTRX 2g, every 24 h [4] | VCM or LVFX (if S) | |
| | Meningitis | PCG: S (MIC ≦ 0.06μg/mL) | PCG 4,000,000 units, every 4 h [4, 14] or ABPC 2g, every 4 h [4,15,16] | CTRX | |
| | | PCG: R (MIC ≦ 0 .12 μg/mL) & CTRX: S (MIC ≦ 0.5μg/mL) | CTRX 2g , every 12 h [4,14] | CFPM [10] | |
| | | PCG: R (MIC ≧ 0.12μg/mL) & CTRX: I or R (MIC ≧ 1.0μg/mL) | VCM initial dose 25–30 mg/kg and subsequent doses 15–20 mg/kg, every 12 h + CTRX 2 g, every 12 h [4,8,14]<br>(consider RFP addition if CTRX MIC>2 μg/mL& RFP: S, and RFP addition)[4,15,16] | | Target VCM AUC value is 400-600 μg・h/mL[i] |
| Group A, B, C, F, G *Streptococcus β* | Bacteremia, soft tissue infection | PCG: S | PCG 2,000,000–4,000,000 units, every 4 h [4] or ABPC 2g, every 4-6 h | CEZ or CTRX | CLDM is used for toxin production suppression purposes even when susceptibility is "resistant". |
| | Toxic shock syndrome | PCG: S | Each above-mentioned regimen + CLDM 600 mg, every 8 h [4,17] | | |
| | | PCG MIC ≦ 0.12μg/mL | PCG 4,000,000 units, every 4 h [4] or ABPC 2g, every 4-6 h [5] | CTRX [4] | PCG can be continuously infused for 24 h [4], or divided between 6-h intervals [6,7]. 2,000,000–3,000,000 units, every 4 h is also an option (native valve [6,7], prosthetic valve [6]) |

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| Viridans Streptococci, *S. gallolyticus (S. bovis)* | Endocarditis | PCG MIC = 0.25μg/mL | PCG 4,000,000 units, every 4 h or ABPC 2 g, every 4 h + GM 3 mg/kg, every 24 h (or 1 mg/kg, 2–3 times per day) [4-8)] | CTRX (if MIC ≦ 0.5 μg/mL)＋GM | PCG can be continuously infused for 24 h [4)]. Target GM levels: 3–5 μg/mL at peak, less than 1 μg/mL at trough [5,8)]. Concomitant administration of GM for 2 weeks in case of native valve, 6 weeks in case of prosthetic valve. |
| | | PCG MIC ≧ 0.5 | Consult with infectious disease specialists [5-7)]. | | |
| | Other than endocarditis (e.g., pneumonia, bacteremia, febrile neutropenia) | PCG: S | PCG 2,000,000–3,000,000 units, every 4–6 h or ABPC 2 g, every 6–8 h [4,18)] | CTRX | Continuous infusion of PCG for 24 h can be selected[4)]. |
| | | PCG: I/R & CTRX: S | CTRX 2g , every 24 h [18)] | | |
| | | PCG: I / R & CTRX: R & VCM: S | VCM initial dose 25–30 mg/kg and subsequent doses 15–20 mg/kg, every 12 h [18)] | | |
| *Enterococcus spp.* | Endocarditis | PCG: S | (1) When MIC is 500 or more μg/mL in GM synergy screening tests: PCG 4,000,000 units, every 4 h or ABPC 2 g, every 4 h + GM 3 mg/kg, every 24 h (or 1 mg/kg, 2–3 times per day) [4-7)]<br>(2) When MIC for GM is MIC > 500 μg/mL in GM synergy screening test, or when there is no combined use of GM: ABPC 2 g, every 4 h + CTRX 2 g, every 12 h [4-7)] | | Implement GM synergy screening test for endocarditis. Target GM levels: 3–5 μg/mL at peak, less than 1 μg/mL at trough [5, 8)]. |
| | | PCG: R (MIC ≧ 16μg/mL) & VCM: S | When MIC for GM is 500 or more μg/mL in GM synergy screening test: VCM (initial dose, 25-30 mg/kg and subsequent doses, 15-20 mg/kg, every 12h [8)]) + GM 3mg/kg, every 24 h (or 1 mg/kg, 2-3times per day)[4,5)] | SBT / ABPC: if S SBT/ABPC+ GM [6,7)] | Target GM levels: 3–5 μg/mL at peak, less than 1 μg/mL at trough [5,8)].<br>Target VCM AUC value is 400-600 μg・h/mL[i)]. |
| | | VCM: R (VRE) | LZD or DAP＋ABPC [6,7,19)] | | Consult with infectious disease specialists |
| | Other than endocarditis | PCG: S | PCG 3,000,000 units, every 4 h or ABPC 2 g, every 4–6 h [4)] | | |
| | | PCG: R & VCM: S | VCM initial dose, 25–30 mg/kg and subsequent doses, 15–20 mg/kg, every 12 h [8)] | | |
| **Gram-positive rods [GPR]** | | | | | |
| *Bacillus spp. (*Other than *Bacillus anthracis)* | Catheter-related bloodstream infections, etc. | VCM: S | VCM initial dose, 25–30 mg/kg and subsequent doses, 15–20 mg/kg, every 12 h [8)] | CLDM [4)] | |

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| *Corynebacteri-um spp.* | Catheter-related bloodstream infection, prosthetic infection, etc. | VCM: S | VCM initial dose, 25–30 mg/kg and subsequent doses, 15–20 mg/kg, every 12 h [4,8)] | PCG (if S) or TEIC or LZD (if S)[4)] | |
| *Listeria monocytogenes* | Meningitis | ABPC: S | ABPC 2g, every 4 h [4)] ± GM 1.7mg/kg, every 8 h | ST or " ABPC + ST" | Consult with infectious disease specialists |
| *Nocardia spp.* | Severe pneumonia / brain abscess / disseminated infection | (Routine susceptibility tests are difficult) | ST trimethoprim 240–320 mg, every 8 h + IPM/CS 0.5 g, every 6 h or IPM/CS 0.5 g, every 6 h + AMK 15 mg/kg, every 24 h [4,20)] | LZD, MEPM, CTRX, MINO | Consult with infectious disease specialist. LZD is usually "S". ST is rarely "R", but room for debate regarding correlation between susceptibility tests and clinical effects. ST: trimethoprim 15 mg/kg/day equals to Japanese ST mixture (1 tablet or 1 g of trimethoprim is 80 mg) 3–4 tablets or 3–4 g, every 8 h |
| **Gram-negative cocci [GNC]** | | | | | |
| *Neisseria meningitidis* | Meningitis, bacteremia | PCG: S (MIC < 0.1 μg/mL) | PCG 4,000,000 units, every 4 h or ABPC 2 g, every 4 h [4,15,16)] | CTRX | |
| | | PCG: R | CTRX 2g , every 12 h [4,15,16)] | | |
| **Gram-negative rods (Enterobacteriaceae) [GNR]** | | | | | |
| *Escherichia coli, Proteus mirabilis* Note: See section on *Enterobacter spp* . for *Proteus vulgaris* | Urinary tract infection, bacteremia, etc. (excluding meningitis) | ABPC: S | ABPC 1～2g, every 6 h [21)] | CPFX (if S) or ST (if S) | |
| | | ABPC: R & CEZ: S | CEZ 2g, every 8 h [4,22,23)] | | |
| | | ABPC: R & CEZ: R & CTRX (CTX): S | CTRX 1～2g, every 24 h [4,23,24)] | | |
| | | ESBL-producing strain CTRX (CTX): R or CAZ: R & MEPM:S & TAZ/PIPC: S & CMZ: S | CMZ 1～2g, every 8 h [25,26)] TAZ/PIPC 4.5g, every 6～8 h [27,28)] MEPM 1g, every 8 h [4,23,24)] | | CMZ and TAZ/PIPC can be an option for pyelonephritis. |
| | | Either MEPM or IPM/CS are not S | Consult for infectious disease specialists. | | |
| | Meningitis | CTRX: S | CTRX 2g, every 12 h [4,29)] | | Avoid CEZ for meningitis. |
| | | CTRX: R & MEPM: S | MEPM 2g, every 8 h [29)] | | |
| | | Either MEPM or IPM/CS are not S | Consult with infectious disease specialists. | | |

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| *Klebsiella spp.* | Urinary tract infection, pneumonia, liver abscess, etc. | ・ABPC is naturally resistant.<br>・See section on "*Escherichia coli, Proteus spp*".<br>・Observational studies indicates that CTRX is superior than CEZ for invasive liver abscess [30]. | | | |
| *Enterobacter spp.*, *Citrobacter spp.*, *Serratia marcescens*, *Proteus vulgaris*, *Morganella spp.* | Bacteremia, pneumonia, etc. (excluding meningitis) | CTRX (CTX): S & CAZ: S & CFPM: S | CFPM 1g, every 8 h or 2g, every 8-12 h [4,23,24,31]<br>TAZ/PIPC 4.5g, every 6-8 h [24] or CTRX 1-2g, every 24 h [4,23,24] | MEPM or CPFX (if S) or ST (if S) | ABPC is naturally resistant. CTRX, CAZ, and TAZ/PIPC potentially become resistant during treatment due to AmpC cephalosporinase production, specifically in cholangitis associated with biliary tract malignancies [32]. |
| | | CTRX (CTX): R or CAZ: R, CFPM: S & MEPM: S | CFPM (1g, every 8 h or 2g, every 8-12 h) [4,23,24] | CPFX (if S) or ST (if S) | |
| | | CTRX (CTX): R or CAZ: R, CFPM: R & MEPM: S | MEPM 1g, every 8 h [4,23,24] | | |
| | | Either MEPM or IPM/CS are not S | Consult with infectious disease specialists | | *Serratia spp.* is naturally resistant to colistin. |
| | Meningitis | CFPM: S | CFPM 2g, every 8 h [29] | | Consult with infectious disease specialist. CTRX can be used for *C. koseri*. |
| | | MEPM: S | MEPM 2g, every 8 h [29,33] | | |
| | | Either MEPM or IPM/CS are not S. | Consult with infectious disease specialists. | | *Serratia spp.* is naturally resistant to colistin. |
| *Salmonella spp.* (extra-abdominal typhus) | Bacteremia, extra-abdominal infections (e.g., mycotic aneurysms) | ABPC: S | ABPC 2g, every 6 h [33] | CPFX (if S) | |
| | | ABPC: R & CTRX: S | CTRX 2g, every 24 h [33] | | 2 g, every 12 h for meningitis |
| | | ABPC: R & CTRX: R & MEPM: S | MEPM 1g, every 8 h [33] | | 2 g, every 8 h for meningitis |
| **Gram-negative rods (non-glucose fermenting bacteria) [GNR]** | | | | | |
| *Pseudomonas aeruginosa* | Pneumonia, urinary tract infection, bacteremia, febrile neutropenia, etc. (excluding meningitis) | CAZ: S | CAZ 2 g, every 8 h (or 1 g, every 6 h)[4,23] | MEPM (if S) or CPFX (if S) | |
| | | CFPM: S | CFPM 2g, every 8-12 h (or 1g, every 8 h) [4,23] | | |
| | | PIPC: S | PIPC 4g, every 6 h [4] | | PIPC susceptibility standard is set when at least 3 g is used every 6 h [23]. |
| | | All of the above and R & MEPM: S | MEPM 1g, every 8 h [4,23] | CPFX (if S) | |
| | | Either MEPM or IPM/CS are not S | CTLZ/TAZ considered | | Consult with infectious disease specialists. |
| | Meningitis | CAZ: S or CFPM: S | CAZ 2g, every 8 h or CFPM 2g, every 8 h [10] | | |
| | | MEPM: S | MEPM 2g, every 8 h [29] | | |
| *Acinetobacter baumannii* | Hospital-acquired pneumonia / ventilator-associated pneumonia, | CFPM: S | CFPM 2g, every 8 h [4] | CPFX (if S) or MINO (if S) | |
| | | SBT/ABPC: S | SBT/ABPC 3 g, every 6 h (consult with infectious disease specialist for severe cases) [4,34] | | SBT exerts antibacterial effect. |
| | | MEPM: S | MEPM 1g, every 8 h [23] | | |

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| | wound infection | Either MEPM or IPM/CS are not S | Consult with infectious disease specialist. | | |
| *Stenotrophom-onas maltophilia* | Bacteremia, pneumonia | ST: S | 240–320 mg, every 8 h as ST trimethoprim [4] | MINO [4] or CPFX (if S) | Naturally resistant to carbapenem. ST: trimethoprim 15 mg/kg/day equals to Japanese ST mixture (1 tablet or 1 g of trimethoprim is 80 mg) 3–4 tablets or 3–4 g, every 8 h |
| **Gram-negative rods (others) [GNR]** | | | | | |
| *Haemophilus influenzae* | Meningitis | ABPC: S | ABPC 2g, every 4 h [14-16] | CTRX [29] | |
| | | ABPC: R & CTRX (CTX): S | CTRX 2g, every 12 h [4,15,16] | CFPM [29] | |
| | Pneumonia, epiglottitis | ABPC: S | ABPC 2g, every 6 h [4] | | |
| | | ABPC: R & SBT/ABPC: S | SBT/ABPC 3g, every 6 h [4] | | |
| | | ABPC: R & CTRX (CTX): S | CTRX 1-2g, every 24 h [4] | | |
| *Pasteurella multocida, Capnocytopha-ga canimorsus* | Animal bite | PCG: S | SBT/ABPC 3g, every 6 h [17] | CTRX | PCG 4,000,000 units every 4 h for infections can be used for monobacterial infeciton. |
| | | PCG: R & SBT/ABPC: S | SBT/ABPC 3g, every 6 h [17] | CTRX | |
| *Aeromonas spp.* | Soft tissue infection, bacteremia | CTRX: S or MINO: S | CTRX 2g, every 24 h＋MINO 100mg, every 12 h [17] | CPFX＋MINO, LVFX | |
| *Vibrio vulnificus* | Soft tissue infection, bacteremia | CTRX: S & MINO: S | CTRX 2g, every 24 h ＋MINO 100mg, every 12 h [17] | CTX＋CPFX, LVFX | Observational studies have indicated that β-lactam monotherapy had a higher mortality rate than combination therapy [35]. |
| **Obligate anaerobic bacteria (other than *C. difficile*)** | | | | | |
| Obligate anaerobes | Polymicrobial infections | ・Indication for antimicrobials against obligate anaerobes is considered depending on the efficacy of drainage.<br>・Indication for antimicrobials against obligate anaerobes for polymicrobial infections are determined by the susceptibility results.<br>・Obligate anaerobes have the three following characteristics depending on the susceptibility pattern.<br>(1) Most obligate anaerobes existing above the diaphragm (e.g., *Peptostreptococcus spp., Prevotella spp.*) are susceptibile to PCG and CLDM, while β-lactamase-producing strain exists.<br>(2) Obligate anaerobic bacteria existing below the diaphragm (e.g., *Bacteroides spp.*) include β-lactamase-producing strains. The resistance rates of non-fragilis *Bacteroides spp.* (other than *B. fragilis*) against CLDM and CMZ have been increasing.<br>(3) Most obligate anaerobes which include (1) and (2) are susceptibile to SBT/ABPC, TAZ/PIPC, MEPM, and MNZ.<br>・The two following points should be considered when selecting a target antimicrobials for polymicrobial infections where obligate anaerobes contribute: (1) Whether obligate anaerobic bacteria shuold truly be covered, and (2) Whether bacteria other than obligate anaerobic bacteria should be covered. | | | |

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| *Peptostreptococcus spp., Prevotella spp*. (obligate anerobes above the diaphragm) | Lung abscess, deep cervical infection, etc. | Susceptibility results of bacteria other than obligate anaerobes should be referred. | | SBT/ABPC 3g, every 6 h or CLDM 600mg, every 8 h or MNZ 500mg, every 8 h ＋PCG 2,000,000–3,000,000 units, every 4 h or CTRX 2g, every 24 h [36] | TAZ/PIPC | |
| | Brain abscess | | | PCG 4,000,000 units, every 4 h or CTRX 2g, every 12 h or CFPM 2g, every 8h ＋ MNZ 500mg, every 8 h[37] | | |
| *Bacteroides spp.* (obligate anerobes below the diaphragm) | Polymicrobial intra- abdominal infection (secondary peritonitis, intraperitoneal abscess, cholangitis) | Insufficient drainage | Susceptibility results of bacteria other than obligate anaerobes should be referred. | SBT/ABPC 3g, every 8 h or TAZ/PIPC 4.5g, every 8 h or MNZ 500mg, every 8 h + CEZ 2g, every 8 h or CTRX 2g, every 24 h or CFPM 2g, every 12 h or CPFX 400mg, every 12h [4] | MEPM | CMZ: R and CLDM: "resistant" are increasing [4]. |
| | | Sufficient drainage | | CMZ 1g, every 8 h or CLDM 600mg, every 8 h + CEZ 2g, every 8 h or CTRX 2g, every 24 h or CFPM 2g, every 12 h or CPFX 400mg, every 12 h or aforementioned “insufficient drainage” options. [4] | | |
| *Clostridium spp.* (e.g., *C. perfringens*) | Gas gangrene | PCG: S | | PCG 4,000,000 units, every 4 h +CLDM 600 mg, every 8 h [4,17] | | CLDM is used for toxin production suppression purposes even when susceptibility is "resistant" [4]. |
| ***Clostridioides (Clostridium) difficile*** | | | | | | |
| *Clostridioides (Clostridium) difficile* | *Clostridioides difficile* infection (CDI) | Initial onset | | VCM 125 mg, four times a day (orally or through nasogastric tube) or FDX 200mg, twice a day[4,38] | Non-severe: MNZ orally | Intravenous VCM is ineffective. |
| | | Reccurrence | | FDX 200mg, twice a day[38] | When initial treatment is MNZ: VCM | |
| | | Shock, hypotension, megacolon, ileus, or VCM 125 mg regimen is ineffective | | VCM 500 mg, every 6 h (orally or through nasogastric tube) (500 mg / saline 100 mL as stationary enema through anus for ileus) ± MNZ 500 mg, intravenously every 8 h[38] | | |
| **Other bacteria** | | | | | | |
| *Legionella spp.* | Pneumonia | | | LVFX 500～750mg, every 24 h [4]or AZM 500mg, every 24 h [4] | MINO [4] | |
| *Mycoplasma pneumoniae* | Pneumonia | | | MINO 100mg, every 12 h [4] | AZM or LVFX | |
| *Rickettsia japonica* | Japanese spotted fever | | | MINO 100mg, every 12 h [39] | CPFX | |
| *Orientia tsutsugamushi* | Scrub typhus | | | MINO 100mg, every 12 h [39] | AZM | CPFX is ineffective. |

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| *Leptospira interrogans* | Leptospirosis | | PCG 1,500,000 units, every 6 h [40] | CTRX or MINO | |
| **Fungi** | | | | | |
| *Candida spp.* | Candidemia, disseminated candidiasis (includes febrile neutropenia) | ・Empirical treatment should be stepped down to oral FLCZ or VRCZ if blood culture is negative and clinically stable.<br>・Switch to FLCZ or VRCZ in endophthalmitis since MCFG has poor intraocular penetration (L-AMB ± 5-FC if there is resistance to FLCZ and VRCZ).<br>・Most of *C. albicans, C. parapsilosis,* and C. *tropicalis* are susceptible to FLCZ, *C. glabrata* is either susceptible or resistant, and *C. krusei* is naturally resistant. The difficult-to-identify *C. auris* that can be multi-drug resistant has been recently reported.<br>・Most cases of candiduria are not treated. However, candidemia and disseminated candidiasis may be diagnosed as a result of candiduria. Infectious disease specialists should also be consulted when candiduria requires treatment. MCFG and L-AMB have poor urinary tract penetration. | | | |
| *Candida albicans, C. parapsilosis, C. tropicalis* | After stabilization of candidemia | FLCZ: S | FLCZ initial dose 800 mg and subsequent doses 400 mg, every 24 h [41] | | |
| *C. glabrata* | | FLCZ: S | FLCZ initial dose 800 mg and subsequent doses 400 mg, every 24 h [41] | | MCFG can be an alternative. Consult with infectious disease specialists |
| | | FLCZ: R & VRCZ: S | VRCZ initial dose 6 mg/kg, every 12 h and subsequent doses 4 mg/kg, every 12 h[41] | | |
| *C. krusei* | | FLCZ: R & VRCZ: S | VRCZ initial dose 6 mg/kg, every 12 h and subsequent doses 4 mg/kg, every 12 h [41] | | |
| *Aspergillus spp.* | Invasive pulmonary aspergillosis | | VRCZ initial dose 6 mg/kg, every 12 h and subsequent doses 4 mg/kg, every 12 h[4,41] | L-AMB [4] | |
| *Pneumocystis jirovecii* | Pneumocystis | | 240–320 mg as ST trimethoprim, every 8 h [4] | Intravenous infusion of pentamidine [4] | ST: trimethoprim 15 mg/kg/day equals to Japanese ST mixture (1 tablet or 1 g of trimethoprim is 80 mg) 3–4 tablets or 3–4 g, every 8 h. |
| *Cryptococcus spp.* | Meningitis (non-HIV) | | L-AMB, 3–4 mg/kg, every 24 h + 5-FC, 25 mg/kg orally, every 6 h [41] | FLCZ (high dose) | |
| *Mucor spp.* | Mucormycosis | | L-AMB, 5～10mg/kg, every 24 h [41] | | |
| **Virus** | | | | | |
| Influenza | Pneumonia, etc. | | Oseltamivir 75 mg orally, twice a day [42] | Peramivir | |

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| SFTS | Severe fever with thrombocytopenia syndrome | | Not validated [43] | | Consider tetracycline when rickettsial infection cannot be ruled out by medical history. [43] |
| CMV | Pneumonia, etc. | | Ganciclovir 5 mg/kg, every 12 h [4] | Foscarnet | |
| HSV | Pneumonia, etc. | | Acyclovir 10 mg/kg, every 8 h [44] | | |
| SARS-CoV2 | Pneumonia, etc. | | See other guidelines for details [45,46] | | |

This table refers to guidelines relating to each infectious disease and the JAID/JSC infectious disease treatment guidelines and adds susceptibility test criteria [23] and information regarding proper use of antimicrobial agents [13].

ABPC, ampicillin; AMK, amikacin; AZM, azithromycin; CAZ, ceftazidime; CEZ, cefazolin; CFPM, cefepime; CLDM, clindamycin; CMV, cytomegalovirus; CMZ, cefmetazole; CPFX, ciprofloxacin; CTRX, ceftriaxone; CTX, cefotaxime; DAP, daptomycin; 5-FC, flucytosine; FDX, fidaxomicin; FLCZ, fluconazole; GM, gentamycin; HSV, herpes simplex virus; IPM/CS, imipenem/cilastatin; L-AMB, liposomal amphotericin B; LVFX, levofloxacin; LZD, linezolid; MCFG, micafungin; MEPM, meropenem; MINO, minocycline; MNZ, metronidazole; PCG, penicillin G; PIPC, piperacillin; RFP, rifampicin; SBT/ABPC, sulbactam/ampicillin; SFTS, severe fever with thrombocytopenia syndrome; ST, sulfamethoxazole/trimethoprim; TAZ/PIPC, tazobactam/piperacillin; TEIC, teicoplanin; VCM, vancomycin; VRCZ, voriconazole. (Abbreviations of antimicrobials are based on JAID/JSC infectious disease treatment guidelines)

S: susceptible, I: intermediarte, R: resistant


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