

## DAFTAR PUSTAKA

1. Thomas-Rüddel DO, Schlattmann P, Pletz M, Kurzai O, Bloos F. Risk factors for invasive candida infection in critically ill patients: a systematic review and meta-analysis. *Chest*. 2022;161(2):345-55.
2. Colombo AL, Guimarães T, Sukiennik T, Pasqualotto AC, Andreotti R, Queiroz-Telles F, et al. Prognostic factors and historical trends in the epidemiology of candidemia in critically ill patients: an analysis of five multicenter studies sequentially conducted over a 9-year period. *Intensive Care Med*. 2014;40(10):1489-98.
3. Puig-Asensio M, Peman J, Zaragoza R, Garnacho-Montero J, Martin-Mazuelos E, Cuenca-Estrella M, et al. Impact of therapeutic strategies on the prognosis of candidemia in the ICU. *Crit Care Med*. 2014;42:1423-32.
4. Bongomin F, Gago S, Oladele RO, Denning DW. Global and multinational prevalence of fungal diseases—estimate precision. *J Fungi*. 2017;3(4):57.
5. Zhang H, Zhu A. Emerging invasive fungal infections: clinical features and controversies in diagnosis and treatment processes. *Infect Drug Resist*. 2020;13:607.
6. Pappas PG, Kauffman CA, Andes DR, Clancy CJ, Marr KA, Ostrosky-Zeichner L, et al. Clinical practice guideline for the management of candidiasis: 2016 update by the Infectious Diseases Society of America. *Clin Infect Dis*. 2016;62(4):e1.
7. Donnelly JP, Chen SC, Kauffman CA, Steinbach WJ, Baddley JW, Verweij PE, et al. Revision and update of the consensus definitions of invasive fungal

disease from the European Organization for Research and Treatment of Cancer and the Mycoses Study Group Education and Research Consortium. *Clin Infect Dis.* 2020;71(6):1367.

8. Von Lilienfeld-Toal M, Wagener J, Einsele H, Cornely OA, Kurzai O. Invasive fungal infection: new treatments to meet new challenges. *Dtsch Arztebl Int.* 2019;116(16):271.
9. Gupta AK, Venkataraman M, Renaud HJ, Summerbell R, Shear NH, Piguet V. The increasing problem of treatment-resistant fungal infections: a call for antifungal stewardship programs. *Int J Dermatol.* 2021;60(12):e477-83.
10. Chakraborti A, Jaiswal A, Verma PK, Singhal R. A prospective study of fungal colonization and invasive fungal disease in long term mechanically ventilated patients in a respiratory intensive care unit. *Indian J Crit Care Med.* 2018;22:558-63.
11. Garey KW, Rege M, Pai MP, Mingo DE, Suda KJ, Turpin RS, et al. Time to initiation of fluconazole therapy impacts mortality in patients with candidemia: a multi-institutional study. *Clin Infect Dis.* 2006;43:25-31.
12. Friedman J, Spec A, Mazi P. Invasive fungal infections in the intensive care unit. In: Alzaidi Y, Gebily MA, eds. *The Pharmacist's Expanded Role in Critical Care Medicine*, Springer, Cham; 2025. p. 559-73.
13. Thompson BT, Bernard GR. ARDS Network (NHLBI) studies – successes and challenges in ARDS clinical research. *Crit Care Clin.* 2011;27(3):459-68.
14. Lee W, Slutsky A. Acute hypoxemic respiratory failure and ARDS. In: Broaddus VC, Ernst JD, King TE Jr, Lazarus SC, eds. *Murray & Nadel's*

textbook of respiratory medicine. 6th Ed. Philadelphia: Elsevier; 2016. p. 1740-60.

15. Papon N, et al. Fungal infections in transplant recipients: pros and cons of immunosuppressive and antimicrobial treatment. *Lancet Microbe*. 2021;2(1):e6-8.
16. Webb BJ, Ferraro JP, Rea S, Kaufusi S, Goodman BE, Spalding J. Epidemiology and clinical features of invasive fungal infection in a US health care network. *Open Forum Infect Dis*. 2018;5:187.
17. Wahyuningsih R, Adawiyah R, Sjam R, Prihartono J, Ayu E, Wulandari T, et al. Serious fungal disease incidence and prevalence in Indonesia. *Mycoses*. 2021;64:1203–12.
18. Hankovszky P, Fazakas J, Molnar Z, Molnar A, Zsoldos A, Nemeth M. Invasive candida infections in the ICU: diagnosis and therapy. *J Crit Care Med*. 2015;1(4):129.
19. Ruhnke M, Rickerts V, Cornely OA, Buchheidt D, Glöckner A, Heinz W. Estimated burden of fungal infections in Germany. *Mycoses*. 2015;58 Suppl 5:22-8.
20. Rabaan AA, Alfaraj AH, Alshengeti A, Alawfi A, Alwarthan S, Alhajri M, et al. Antibodies to Combat Fungal Infections: Development Strategies and Progress. *Microorganisms*. 2023;11(3).
21. Jamiu AT, Albertyn J, Sebolai OM, Pohl CH. Update on *Candida krusei*, a potential multidrug-resistant pathogen. *Med Mycol*. 2021;59(1):14–30.
22. Whaley SG, Berkow EL, Rybak JM, Nishimoto AT, Barker KS, Rogers PD.

- Azole antifungal resistance in *Candida albicans* and emerging non-albicans *Candida* species. *Front Microbiol.* 2017;7:1–12.
23. McCarty TP, White CM, Pappas PG. Candidemia and Invasive Candidiasis. *Infect Dis Clin North Am.* 2021;35(2):389–413.
  24. Kullberg BJ, Arendrup MC. Invasive candidiasis. Campion EW, editor. *New Eng J Med.* 2015;373(15):1445–56.
  25. Kotey FC, Dayie NT, Tetteh-Uarcoo PB, Donkor ES. *Candida* bloodstream infections: changes in epidemiology and increase in drug resistance. *Infect Dis.* 2021;14:1–5.
  26. Verweij PE, Chowdhary A, Melchers WJG, Meis JF. Azole resistance in *Aspergillus fumigatus*: Can we retain the clinical use of mold-active antifungal azoles? *Clin Infect Dis.* 2016;62:362–8.
  27. Buckner CA, Lafrenie RM, Dénommée JA, Caswell JM, Want DA, Gan GG, et al. Immunopathogenesis of Aspergillosis. In: Razzaghi–Abyaneh M, Rai M, editors. *The genus Aspergillus – pathogenicity, mycotoxin production and industrial applications.* London; 2022. 136.
  28. Gu X, Hua YH, Zhang YD, Bao D, Lv J, Hu HF. The pathogenesis of *Aspergillus fumigatus*, host defense mechanisms, and the development of AFMP4 antigen as a vaccine. *Polish J Microbiol.* 2021;70:3–11.
  29. Paulussen C, Hallsworth JE, Álvarez-Pérez S, Nierman WC, Hamill PG, Blain D, et al. Ecology of aspergillosis: insights into the pathogenic potency of *Aspergillus fumigatus* and some other *Aspergillus* species. *Microb*

Biotechnol. 2017;10:296–322.

30. Englert JA, Bobba C, Baron RM. Integrating molecular pathogenesis and clinical translation in sepsis-induced acute respiratory distress syndrome. *JCI Insight*. 2019;4(2).
31. Riera FO, Caeiro JP, Angiolini SC, Vigezzi C, Rodriguez E, Icely PA, et al. Invasive candidiasis: update and current challenges in the management of this mycosis in South America. *Antibiotics*. 2022;11(7):1-16.
32. Thomas-Rüddel DO, Schlattmann P, Pletz M, Kurzai O, Bloos F. Risk factors for invasive candida infection in critically ill patients: a systematic review and meta-analysis. *Chest*. 2022;161(2):345-55.
33. Logan C, Martin-Loeches I, Bicanic T. Invasive candidiasis in critical care: challenges and future directions. *Intensive Care Med*. 2020;46(11):2001-14.
34. Bassetti M, Bouza E. Invasive mould infections in the ICU setting: complexities and solutions. *J Antimicrob Chemother*. 2017;72:i39-47.
35. Mantadakis E, Tragiannidis A. Invasive fungal infections in the pediatric intensive care unit. *Pediatr Infect Dis J*. 2019;38:E216-8.
36. Warris A, Lehrnbecher T, Roilides E, Castagnola E, Brüggemann RJM, Groll AH. ESCMID-ECMM guideline: diagnosis and management of invasive aspergillosis in neonates and children. *Clin Microbiol Infect*. 2019;25:1096-113.
37. Baddley JW. Clinical risk factors for invasive aspergillosis. *Med Mycol*. 2011;49:7-12.

38. Gavalda J, Ramos A, Rufi G, Gurgui M, Montejo M. Risk factors for invasive aspergillosis in solid-organ transplant recipients: a case-control study. *Clin Infect Dis.* 2005;41:52-9.
39. Phoompoung P, Villalobos APC, Jain S, Foroutan F, Orchanian-Cheff A, Husain S. Risk factors of invasive fungal infections in lung transplant recipients: a systematic review and meta-analysis. *J Heart Lung Transplant.* 2022;41:255-62.
40. Dimopoulos G, Frantzeskaki F, Poulakou G. Invasive aspergillosis in the intensive care unit. *Ann N Y Acad Sci.* 2012;1272:31-9.
41. Teixeira F, Romano M, Esteves A, Carvalho J. Invasive pulmonary aspergillosis in an (apparently) immunocompetent patient. *Cureus.* 2020;12:1-6.
42. Aliyali M, Hedayati MT, Habibi MR, Khodavaisy S. Clinical risk factors and bronchoscopic features of invasive aspergillosis in intensive care unit patients. *J Prev Med Hyg.* 2013;54:80-2.
43. Ahmed J, Singh G, Mohan A, Agarwal R, Sachdev J, Khullar S, et al. Invasive pulmonary aspergillosis infection in severely ill COPD patients in pulmonary ward and ICU. *Indian J Med Microbiol.* 2022;40:223-7.
44. Iqbal N, Irfan M, Jabeen K, Kazmi MM, Tariq MU. Chronic pulmonary mucormycosis: an emerging fungal infection in diabetes mellitus. *J Thorac Dis.* 2017;9:3699-704.

45. Thornton CR, Davies GE, Dougherty L. Development of a monoclonal antibody and a lateral-flow device for the rapid detection of a Mucorales-specific biomarker. *Front Cell Infect Microbiol.* 2023;13.
46. Rawson TM, Antcliffe DB, Wilson RC, Abdolrasouli A, Moore LS. Management of bacterial and fungal infections in the ICU: diagnosis, treatment, and prevention recommendations. *Infect Drug Resist.* 2023;16:2709-26.
47. Cornely OA, Hoenigl M, Lass-Flörl C, Chen SCA, Kontoyiannis DP, Morrissey CO, et al. Defining breakthrough invasive fungal infection-Position paper of the mycoses study group education and research consortium and the European Confederation of Medical Mycology. *Mycoses.* 2019;62:716–29.
48. Barantsevich N, Barantsevich E. Diagnosis and treatment of invasive candidiasis. *Antibiotics.* 2022;11:718.
49. Lass-Flörl C. Triazole antifungal agents in invasive fungal infections: a comparative review. *Drugs.* 2011;71:2405-19.
50. Lin J, Zhou M, Chen J, Zhang L, Lu M, Liu Z. De-escalation from echinocandins to azole treatment in critically ill patients with candidemia. *Int J Infect Dis.* 2022;121:69-74.
51. Stemler J, de Jonge N, Skoetz N, Sinkó J, Brüggemann RJ, Busca A, et al. Antifungal prophylaxis in adult patients with acute myeloid leukaemia treated with novel targeted therapies: a systematic review and expert consensus

- recommendation from the European Hematology Association. *Lancet Haematol.* 2022;9:e361-73.
52. Groth CM, Dodds-Ashley ES. *Fungal infections in the ICU.* 2016.
  53. Bassetti M, Azoulay E, Kullberg BJ, Ruhnke M, Shoham S, Vazquez J, et al. EORTC/MSGERC definitions of invasive fungal diseases: summary of activities of the intensive care unit working group. *Clin Infect Dis.* 2021;72:S121-7.
  54. Tokamani M, Figgou E, Papamichail L, Sakka E, Toros A, Bouchorikou A, et al. A multiplex PCR melting-curve-analysis-based detection method for the discrimination of five *Aspergillus* species. *J Fungi.* 2023;9:842.
  55. Garg A, Bhalla AS, Naranje P, Vyas S, Garg M. Decoding the guidelines of invasive pulmonary aspergillosis in critical care setting: imaging perspective. *Indian J Radiol Imaging.* 2023;33:382-91.
  56. Nivoix Y, Ledoux MP, Herbrecht R. Antifungal therapy: new and evolving therapies. *Semin Respir Crit Care Med.* 2020;41:158-74.
  57. Redjeki IS. Gangguan Respirasi. In: Rehatta NM, Hanindito E, Tantri AR, Redjeki IS, Soenarto RF, Musba AT. *Anestesiologi dan terapi intensif buku teks KATI PERDATIN.* Jakarta; Gramedia Pustaka Utama; 2019. 953-963.
  58. Mamudi CO, Amin Z, Sedono R, Rumende CM. Peran prokalsitonin dan C reaktif protein sebagai prediktor mortalitas tujuh hari pada pasien acute respiratory distress syndrome di RSCM. *Indones J Chest.* 2019;6:44-55.
  59. Tasaka S, Nakamura H, Aoshiba K. Acute respiratory distress syndrome. In: *Advances in diagnostic tools and disease management.* Japan; 2022.

60. Karpel S, Linz A. Acute Respiratory Distress Syndrome. *Comprehensive Respiratory Disease*. 2020 (19) : 523-534.
61. Matthay MA, Arabi Y, Arroliga AC, Bernard G, Bersten AD, Brochard LJ, et al. A new global definition of acute respiratory distress syndrome. *Am J Respir Crit Care Med*. 2023;207:1368-79.
62. Liufu R, Wang CY, Weng L, Du B. Newly proposed diagnostic criteria for acute respiratory distress syndrome: does inclusion of high flow nasal cannula solve the problem? *J Clin Med*. 2023;12(3):1043.
63. Battaglini D, Robba C, Lopes-Pacheco M, Silva PL, Morales-Quinteros L, Pelosi P. Challenges in ARDS definition, management, and identification of effective personalized therapies. *J Clin Med*. 2023;12(4):1163.
64. Baron RM, Levy BD. Acute respiratory distress syndrome. In: Loscalzo J, Fauci AS, Kasper DL, Hauser SL, Longo DL, Jameson JL, eds. *Harrison's principles of internal medicine*. 21st Ed. New York: McGraw-Hill Education; 2022.
65. Assaad S, Kratzert WB, Akca O, Yildizeli B, Duggal A, Zimmerman NM. Assessment of pulmonary edema: principles and practice. *J Cardiothorac Vasc Anesth*. 2018;32(2):901-14.
66. Matthay MA, Arabi YM, Siegel ER, Ware LB, Zimmerman JL, Kobayashi M. A new global definition of acute respiratory distress syndrome. *Am J Respir Crit Care Med*. 2023;207:1368-79.

67. Tóth K, Oláh A, Farkas N, Kiss S, Hauser G, Eróss B, et al. D-dimer levels in non-COVID-19 ARDS and COVID-19 ARDS patients: a systematic review with meta-analysis. *PLoS One*. 2023;18(2):1-10.
68. Rakhmatullah R, Sudjud RW. Diagnosis dan tatalaksana ARDS diagnosis and management of ARDS. *Anestesia dan Critical Care*. 2019;37(2):58-68.
69. Adams CE, McAuley DF. Acute respiratory distress syndrome. In: Laurent GJ, Shapiro SD, eds. *Encyclopedia of Respiratory Medicine*. Elsevier; 2022. pp. 267-78.
70. Heidemann SM, Hsing DD, Yang W, Rotta AT, Orłowski JP, Yehya N. Pathophysiology and management of acute respiratory distress syndrome in children. *Pediatr Clin North Am*. 2017;64(5):1017-37.
71. Scholten EL, Beitler JR, Prisk GK, Malhotra A, Gajic O, Bos LD, et al. Treatment of ARDS with prone positioning. *Chest*. 2017;151(1):215-24.
72. Mokra D. Acute lung injury – from pathophysiology to treatment. *Physiol Res*. 2020;69(Suppl 3):S353-66.
73. Adyan Donastin, Koentjoro MP, Hidayat MT, Nugroho E, Prasetyo. Comparison of three DNA isolation methods of *Aspergillus niger*. *Metamorfosa J Biol Sci*. 2022;9(1):69-78.
74. Gavazzi G, Krause KH. Ageing and infection. *Lancet Infect Dis*. 2002;2(11):659-66.
75. Torres A, Cilloniz C, Niederman MS, et al. Pneumonia in the ICU: gender-based outcomes. *Intensive Care Med*. 2021;47(1):100-2.

76. Ihtisyam, Zulfa & Mukhlisatunnafsi, Latifah & Anugrah, M. & Fahira, Moon & Priyahita, Putu & Kurniawan, Theophany & Hidayat, Moulid. (2023). ARDS (Acute Respiratory Distress Syndrome) in Pediatric and Adult. *Jurnal Biologi Tropis*. 23. 274-280.
77. Jadeny, S. et al. Faktor-Faktor Yang Mempengaruhi Kematian Pada Pasien ARDS di ICU. *Purbalingga*. 2022 ; 9.
78. Vincent JL, Rello J, Marshall J, et al. International study of the prevalence and outcomes of infection in intensive care units. *JAMA*. 2009;302(21):2323-9.
79. Rubenfeld GD, Caldwell E, Peabody E, et al. Incidence and outcomes of acute lung injury. *N Engl J Med*. 2005;353(16):1685-93.
80. Brown GD, Denning DW, Gow NA, et al. Hidden killers: human fungal infections. *Sci Transl Med*. 2012;4(165):165rv13.
81. Montravers P, Mira JP, Gangneux JP, et al. A multicentre study of antifungal strategies and outcome of *Candida* spp. peritonitis in intensive-care units. *Clin Microbiol Infect*. 2011;17(7):1061-7.
82. Berlot G, Agbedyro A, Presello B. Leukocytosis in the critically ill patient. In: Berlot G, Pozzato G, eds. *Hematologic Problems in the Critically Ill*, Springer, Milano; 2015. pp. 47-57.
83. Niederman MS. Pneumonia: considerations for the critically ill patient. In: Parrillo JE, Dellinger RP, eds. *Critical Care Medicine*, 3<sup>rd</sup> Ed, Elsevier; 2009. pp. 867-83.
84. De Pauw B, Walsh TJ, Donnelly JP, et al. Revised definitions of invasive fungal disease. *Clin Infect Dis*. 2008;46(12):1813-21.

85. Zubovskaia A, Vazquez JA. Invasive aspergillosis in the intensive care unit. *J Fungi*. 2025;11:70.
86. Demass TB, Guadie AG, Mengistu TB, Belay ZA, Melese AA, Berneh AA, et al. The magnitude of mortality and its predictors among adult patients admitted to the intensive care unit in Amhara Regional State, Northwest Ethiopia. *Sci Rep*. 2023;13:12010.
87. Egger M, Hoenigl M, Thompson GR III, Carvalho A, Jenks JD. Let's talk about sex characteristics—as a risk factor for invasive fungal diseases. *Mycoses*. 2022;65:599-612.
88. Azevedo MM, Pereira M, Rodrigues AG, Oliveira M, Gonçalves B, Henriques M. The effect of antibacterial and non-antibacterial compounds alone or associated with antifungals upon fungi. *Front Microbiol*. 2015;6:669.
89. Kronen R, Liang SY, Bochicchio G, Bochicchio K, Powderly WG, Spec A. Invasive fungal infections secondary to traumatic injury. *Int J Infect Dis*. 2017;62:102-11.
90. Franquet T, Müller NL, Lee KS, Oikonomou A, Flint JD. Pulmonary candidiasis after hematopoietic stem cell transplantation: thin-section CT findings. *Radiology*. 2005;236:332-7.
91. Komiya K, Ishii H, Kadota JI. Healthcare-associated pneumonia and aspiration pneumonia. *Aging Dis*. 2015;6(1):27.
92. Allo CL, Nurkholis F. Hubungan infeksi sekunder bakteri dan jamur terhadap tingkat keparahan dan mortalitas pada pasien SARS-CoV-2 yang dirawat di

ICU RS Dr. Kariadi Semarang periode Maret 2020 – Desember 2021. Berk Kedokt. 2021;17:45-52.

93. Rozaliyani A, Nelwan EJ, Wahid M, Aditianingsih D, Karyanti MR, Pratiekauri S, et al. Expert panel recommendations on the clinical practice guidelines for the diagnosis and management of invasive candidiasis in Indonesia. *Acta Med Indones.* 2024;56:159-72.
94. Sedono R, Adisasmita AC, Djuwita R, Sjaaf AC, Nadjib M, Syarif S, et al. Risk factors for development of invasive candidiasis in critically ill patients: a prospective observational study in intensive care unit of a tertiary hospital. *Bali J Anesthesiol.* 2023;7:112-8.
95. Jin W, Yang D, Xu Z, Song J, Jin H, Zhou X, et al. Predicting the risk of invasive fungal infections in ICU sepsis population: the AMI risk assessment tool. *Crit Care.* 2025;29:112-8.