SUKHJIT S. TAKHAR, M.D., S.M.

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CURRENT POSITIONS

- **Co-Founder & Chief Medical Officer, PrimaryMD** (2024 – Present)
  Leading concierge medicine practice focusing on personalized primary care and evidence-based longevity medicine.
- **Co-Director, Infection Control & Antibiotic Stewardship, Mills-Peninsula Medical Center** (2022 – Present)
- **Attending Physician, Mills-Peninsula Hospital, Internal Medicine & Infectious Disease** (2018 – Present)

EDUCATION

- **1995**: B.S. Biology, *magna cum laude*, California State University, Stanislaus, Turlock, CA
- **1999**: M.D. Medicine, *Alpha Omega Alpha,* Medical College of Wisconsin, Milwaukee, WI
- **2014**: S.M. Epidemiology, Harvard School of Public Health, Boston, MA

POSTDOCTORAL TRAINING

- **07/1999 – 06/2002**: Resident, Internal Medicine, UCLA, Los Angeles, CA
- **07/2003 – 01/2006**: Resident, Emergency Medicine, UCLA, Los Angeles, CA
- **01/2006 – 12/2007**: Fellow, Infectious Disease, UCLA, Los Angeles, CA

LICENSURE AND CERTIFICATION

- **2000 – Present**: California Medical License
- **2024 – Present**: New York Medical License

- **2002 – Present**: American Board of Internal Medicine (ABIM)
- **2006 – Present**: American Board of Emergency Medicine (ABEM)
- **2009 – Present**: American Board of Internal Medicine (Infectious Disease) (ABIM)
- **2010 – 2018**: Massachusetts Medical License

ACADEMIC APPOINTMENTS

- **2008 – 2010**: Health Science Assistant Clinical Professor, Department of Emergency Medicine, UCSF, San Francisco, CA
- **09/2010 – 09/2014**: Instructor, Department of Emergency Medicine, Harvard Medical School, Boston, MA
- **10/2014 – 09/2017**: Instructor, Department of Emergency Medicine, Harvard Medical School, Boston, MA
- **10/2021 – 04/2025**: Associate Clinical Professor, Volunteer, Department of Emergency Medicine, UCSF, San Francisco, CA

CLINICAL POSITIONS

- **07/2002 – 02/2007**: Attending Physician, Department of Emergency Medicine, Coalinga Regional Medical Center, Coalinga, CA
- **04/2007 – 07/2008**: Attending Physician, Department of Emergency Medicine, Antelope Valley Hospital, Lancaster, CA
- **05/2007 – 09/2010**: Attending Physician, Department of Emergency Medicine, University of California, San Francisco - Fresno, Fresno, CA (Community Regional Medical Center)
- **07/2008 – 09/2010**: Attending Physician, Department of Infectious Disease, University of California, San Francisco - Fresno, Fresno, CA (Community Regional Medical Center)
- **10/2010 – 09/2017**: Attending Physician, Department of Emergency Medicine, Brigham and Women’s Hospital, Boston, MA
- **05/2011 – 05/2014**: Attending Physician, Department of Internal Medicine, Brigham and Women’s Hospital, Boston, MA
- **06/2013 – 09/2017**: Attending Physician, Department of Emergency Medicine, Brigham and Women’s Faulkner Hospital, Boston, MA
- **05/2013 – 09/2017**: Faculty, Partners Clinical Informatics and Innovation Fellowship, Partners Healthcare (BWH/MGH/HMS), Boston, MA
- **10/2017 – 04/2024**: Attending Physician, Emergency Medicine, Mills-Peninsula Hospital, Burlingame, CA
- **10/2018 – Present**: Attending Physician, Internal Medicine (Infectious Disease), Mills-Peninsula Hospital, Burlingame, CA
- **10/2021 – 04/2025**: Attending Physician, Department of Emergency Medicine, University of California, San Francisco - Fresno, Fresno, CA (Community Regional Medical Center)
- **09/2023 – 09/2024**: Attending Physician, Internal Medicine, Maison Medical Group, Portola Valley, CA
- **09/2024 – Present:** Attending Physician, Internal Medicine, PrimaryMD, San Mateo, CA

MAJOR CONSULTING ROLES

- **02/2020 – Present**: NBA Event Physician and Consultant, National Basketball Association
- **08/2021 – 01/2022**: OTE (Overtime Elite)

LEADERSHIP POSITIONS

- **2012 – 2017**: Infectious Disease Liaison, Brigham and Women's Hospital
- **2012 – 2017**: Site Director, Emergency ID Net, Brigham and Women's Hospital
- **2013 – 2017**: Course Director, Pulmonary Simulation, STRATUS Harvard Affiliated Emergency Medicine Residency Program, BWH/MGH
- **2013**: Co-Organizer, Infectious Disease series, Brigham and Women's Hospital Physician Assistant Program
- **2013 – 2017**: Course Director, Infectious Disease Simulation, STRATUS Harvard Affiliated Emergency Medicine Residency Program, BWH/MGH
- **2014 – 2017**: Director, Harvard Affiliated Emergency Medicine Program (HAEMR) Journal Club, Brigham and Women's Hospital/Massachusetts General Hospital
- **2020**: Assistant Medical Director of Infection Control, Mills-Peninsula Medical Center, Burlingame, CA
- **2022 – Present**: Co-Director, Infection Control and Antibiotic Stewardship, Mills-Peninsula Medical Center, Burlingame, CA

LEADERSHIP AND ENTREPRENEURSHIP

- **Co-Founder, PrimaryMD** (2024 – Present)

COMMITTEE SERVICE

- **2009 – 2010**: Pneumonia Quality Improvement Committee, Community Regional Medical Center, Fresno, CA
- **2011 – 2017**: Partners Human Research Committee, Brigham and Women's Hospital, Member
- **2012 – 2017**: Antibiotic Approval Committee, Brigham and Women's Hospital
- **2017 – 2021**: Quality Assurance and Peer Review Committee, Mills-Peninsula Emergency Medicine Associates
- **2020 – 2022**: Treatment Guideline Committee for COVID-19, Mills-Peninsula Medical Center
- **2020 – 2022**: Lab Testing Committee for COVID-19, Mills-Peninsula Medical Center
- **2023 – Present**: Executive Committee, Mills-Peninsula Emergency Medicine Associates

- **2023 – Present**: Pharmacy and Therapeutics Committee, Mills-Peninsula Medical Center

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PROFESSIONAL SOCIETIES

- **2007 – 2010**: Fresno-Madera Medical Society, Member
- **2007 – 2011**: Society of Academic Emergency Medicine, Member
- **2008 – 2011, 2019 – Present**: American College of Emergency Physicians, Member
- **2008 – Present**: International Society of Travel Medicine, Member
- **2019 – Present**: Infectious Diseases Society of America, Member
- **2021 – Present**: Society for Healthcare Epidemiology of America, Member
- **2023 – Present**: National Lipid Association, Member

EDITORIAL ACTIVITIES

Ad hoc Reviewer

- Western Journal of Emergency Medicine
- Annals of Emergency Medicine
- Journal of Emergency Medicine
- American Journal of Emergency Medicine
- Applied Clinical Informatics
- Journal of Infection
- Journal of the American Medical Association
- PLOS ONE
- Annals of Internal Medicine

Editorial Roles

- **2009 – 2011**: Senior Medical Editor, eMedicine Case Series
- **2009 – 2016**: Editor, Infectious Disease Section, Western Journal of Emergency Medicine
- **2023 – Present**: Topic Editor, DynaMed

HONORS

- **1999**: Alpha Omega Alpha (AOA) National Medical Honor Society, Medical College of Wisconsin, Academic Excellence
- **2009**: Teacher of the Year, UCSF – Fresno, Hospital Wide Teaching Award at UCSF-Fresno
- **2009**: Top Reviewer, Western Journal of Emergency Medicine

- **2016**: Outstanding Attending, Brigham and Women's Hospital, BWH/MGH Harvard Affiliated Emergency Medicine Residency (HAEMR), Voted by Residents at HAEMR program as attending of the year at BWH
- **2017**: Outstanding Attending: Brigham and Women's Hospital, BWH/MGH Harvard Affiliated Emergency Medicine Residency (HAEMR), Voted by Residents at HAEMR program as attending of the year at BWH
- **2017**: Mentor of the Year, Brigham and Women's Hospital, BWH/MGH Harvard Affiliated Emergency Medicine Residency (HAEMR), Voted by Residents at HAEMR program as Mentor of the Year for the entire residency program

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SELECTED INVITED PRESENTATIONS

Regional

- **2008**: Mystery Toxicology Case/Faculty discussant, Los Angeles Intercity Conference, Los Angeles, CA
- **2009**: Fever in the Returned Traveler/lecturer, Los Angeles Intercity Conference, Los Angeles, CA
- **2010**: Pearls and Pitfalls in Serious Infections/Grand Rounds, Kent Hospital, RI
- **2014**: Pearls and Pitfalls in life threatening Infections/Grand Rounds, Boston Medical Center, Boston, MA
- **2016**: Babesiosis and Splenic Rupture, All Boston Conference, Boston, MA
- **2020**: Infections in the Traveler. Zoom Lecture. Grand Rounds. University of Florida, Emergency Medicine Residency
- **2020**: Infections in the Traveler. Zoom Lecture. Harvard Affiliated Emergency Medicine Residency
- **2021**: Review of COVID-19 and Vaccination, Las Vegas, NV. Summer League, National Basketball Association
- **2021**: Review of state of COVID-19, Zoom Lecture, Atlanta, GA. Overtime Elite
- **2022**: Tick Borne Infections, UCSF-Fresno Emergency Medicine Residency Program

National

- **2012**: Review of Infectious Disease Literature/Lecture, American College of Emergency Physicians National Meeting, Denver, CO
- **2012**: Infections in the Returned Traveler/Lecture, American College of Emergency Physicians National Meeting, Denver, CO
- **2012**: Review of Herpes Zoster/Single Presentation, Emergency Medicine Reviews and Perspectives (EM:RAP)/ online podcast
- **2012**: Review of Influenza/Single Presentation, EM:RAP online Lecture
- **2013**: Update on Pharyngitis/Lecture, Western States Emergency Medicine Conference, Park City, Utah
- **2013**: Necrotizing Soft Tissue Infections/Single Presentation, Western States Emergency Medicine Conference, Park City, Utah
- **2013**: Infections in the Returned Traveler/Grand Rounds, University of California, Los Angeles Emergency Medicine Program, Los Angeles, California

- **2013**: Hanta Virus and More: Infections from the North American Wilderness/Lecture, UCSF Wilderness Medicine Conference, Yosemite, California
- **2014**: Update on new antibiotics/Single Presentation, Western States Emergency Conference, Park City, Utah
- **2014**: Health Care Associated Pneumonia: What does the ED physician need to know/Single Presentation, Western States Emergency Medicine Conference, Park City, Utah
- **2014**: Infections in the Returned Traveler: Is it Malaria?/Single Presentation, Western States Emergency Medicine Conference, Park City, Utah
- **2014**: Emerging and Re-emerging infections from the North American Wilderness/Lecture, UCSF Wilderness Medicine Conference, Lake Tahoe, California
- **2015**: Pitfalls in Severe Infections/Hospital Wide Grand rounds, UCSF-Fresno, Fresno, CA
- **2023**: Tropical Infections, UCSF Wilderness Medicine Conference, Bass Lake, California
- **2025**: Buyer Beware: Balancing Hype with Integrity In Longevity Medicine. Vitalism Bay, Berkeley, CA

International

- **2008**: Infections in the Returned Traveler/Lecture, International Conference on Emergency Medicine (ICEM)/American College of Emergency Physicians: San Francisco, California
- **2009**: Coccidioidomycosis in the Traveler/Lecture, Joint International Tropical Medicine Meeting, Bangkok, Thailand
- **2010**: HIV in the emergency department/Lecture, University of Southern California/King Edward Memorial Hospital (KEM) conference: Mumbai, India
- **2010**: Life threatening infections/Lecture, University of Southern California/KEM conference: Mumbai, India

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REPORT OF SCHOLARSHIP

Peer-Reviewed Research Articles

1. Moffett SE, Frazee BW, Stein JC, Navab B, Maselli J, Takhar SS, Gonzales R. Antimicrobial resistance in uncomplicated urinary tract infections in 3 California EDs. *Am J Emerg Med*. 2012;30(6):942-949.
2. Takhar SS, Ting S, Camargo CA, Pallin DJ. Meningitis visits in US EDs 1993–2008. *Acad Emerg Med*. 2012;19(6):632-639.
3. Landman A, Takhar SS, Wang SL, Cardoso A, Kosowsky J, Raja AS, Khorasani R, Poon E. The hazard of software updates to clinical workstations: a natural experiment. *J Am Med Inform Assoc*. 2013;20(e1):e187-e190. doi:10.1136/amiajnl-2012-001494
4. Bell EJ*, Takhar SS, Beloff JR, Schuur JD, Landman AB. Information technology improves the quality of emergency department patient discharge instructions: a quasi-experimental study. *Appl Clin Inform*. 2013;4(4):499-514. doi:10.4338/ACI-2013-07-RA-0046
5. Landman AB, Neri P, Robertson A, McEvoy D, Dinsmore M, Sweet M, Bane A, Takhar SS, Miles S. Efficiency and usability of a prototype near field communication enabled

tablet for electronic medication administration and reconciliation. *JMIR mHealth uHealth*. 2014;2(2):e26. doi:10.2196/mhealth.3215
6. Capp R, Horton CL, Takhar SS, Ginde AA, Peak D, Zane R, Marill KA. Predictors of patients who present to the emergency department with sepsis and progress to septic shock between 4 and 48 hours of ED arrival. *Crit Care Med*. 2015;43(5):983-988.
7. Obermeyer Z, Abujaber S, Makar M, Stoll S, Kayden SR, Wallis LA, Reynolds TA; Acute Care Development Consortium (Takhar SS, consortium member). Emergency care in 59 low- and middle-income countries: a systematic review. *Bull World Health Organ*. 2015;93(8):577-586. doi:10.2471/BLT.14.148338
8. Crisp JG, Takhar SS, Moran GJ, Krishnadasan A, Dowd SE, Finegold SM, Summanen PH, Talan DA. Inability of polymerase chain reaction, pyrosequencing, and culture of infected and uninfected site skin biopsy specimens to identify the cause of cellulitis. *Clin Infect Dis*. 2015;61(11):1679-1687. doi:10.1093/cid/civ655
9. Sohoni A, Nagdev A, Takhar SS, Stone M. Forearm ultrasound-guided nerve blocks vs landmark-based wrist blocks for hand anesthesia in healthy volunteers. *Am J Emerg Med*. 2016;34(4):730-734. doi:10.1016/j.ajem.2015.12.081
10. Poon SJ*, Greenwood-Ericksen MB, Gish RE, Neri PM, Takhar SS, Weiner SG, Schuur JD, Landman AB. Usability of the Massachusetts prescription drug monitoring program in the emergency department: a mixed-methods study. *Acad Emerg Med*. 2016;23(4):406-414. doi:10.1111/acem.12918
11. Frasure SE, Hildreth A*, Takhar SS, Stone MB. Emergency department patients with small bowel obstruction: what is the anticipated clinical course? *World J Emerg Med*. 2016;7(1):35-39. doi:10.5847/wjem.j.1920-8642.2016.01.006
12. Talan DA, Takhar SS, Krishnadasan A, Abrahamian FM, Mower WR, Moran GJ; EMERGEncy ID NET Study Group. Fluoroquinolone-resistant and extended-spectrum β-lactamase-producing Escherichia coli infections in patients with pyelonephritis, United States. *Emerg Infect Dis*. 2016;22(9):1594-1603. doi:10.3201/eid2209.160001
13. Elmer J, Yamane D, Hou PC, Wilcox SR, Bajwa EK, Hess DR, Camargo CA Jr, Greenberg SM, Rosand J, Pallin DJ, Goldstein JN, Takhar SS. Cost and utility of microbiological cultures early after intensive care unit admission for intracerebral hemorrhage. *Neurocrit Care*. 2017;26(1):40-47. doi:10.1007/s12028-016-0289-4
14. Feblowitz J*, Takhar SS, Ward MJ, Ribeira R, Landman AB. A custom-developed emergency department provider electronic documentation system reduces operational efficiency. *Ann Emerg Med*. 2017;70(5):674-682.e1. doi:10.1016/j.annemergmed.2017.05.010
15. Gottlieb M, Peksa GD, Pandurangadu AV, Nakitende D, Takhar SS, Seethala RR. Utilization of ultrasound for the evaluation of small bowel obstruction: a systematic review and meta-analysis. *Am J Emerg Med*. 2018;36(2):234-242. doi:10.1016/j.ajem.2017.07.085
16. Morawski K, Monsen C, Takhar SS, Landman A. A novel information retrieval tool to find hospital care team members: development and usability study. *JMIR Human Factors*. 2018;5(2):e14. doi:10.2196/humanfactors.9090
17. Greenwood-Ericksen MB, Nadel ES, Miller ES, Bhatia K, Kinnaman K, Takhar SS, Raja AS, Nagurney JT, Temin ES, White BA, Kimberly HH. Diffuse abdominal pain and fever in an elderly man. *J Emerg Med*. 2017;53(1):130-134. doi:10.1016/j.jemermed.2017.03.029
18. Duanmu Y, Henwood PC, Takhar SS, Chan W, Rempell JS, Liteplo AS, Koskenoja V, Noble VE, Kimberly HH. Correlation of OSCE performance and point-of-care ultrasound scan numbers among a cohort of emergency medicine residents. *Ultrasound J*. 2019;11(1):3. doi:10.1186/s13089-019-0118-7

19. Billington ME, Seethala RR, Hou PC, Takhar SS, Askari R, Aisiku IP. Differences in prevalence of ICU protocols between neurologic and non-neurologic patient populations. *J Crit Care*. 2019;52:63-67. doi:10.1016/j.jcrc.2019.03.009
20. Talan DA, Takhar SS, Krishnadasan A, Mower WR, Pallin DJ, Garg M, Femling J, Rothman RE, Moore JC, Jones AE, Lovecchio F. Emergence of extended-spectrum β-lactamase urinary tract infections among hospitalized emergency department patients in the United States. *Ann Emerg Med*. 2021;77(1):32-43. doi:10.1016/j.annemergmed.2020.08.022

Other Peer-Reviewed Publications (Commentaries, Editorials, etc.)

1. Takhar SS. Commentary: Update on emerging infections: news from the Centers for Disease Control and Prevention. Murine typhus--Hawaii, 2002. *Ann Emerg Med*. 2004;44(1):43-45.
2. Takhar SS. Commentary: Update on emerging infections: news from the Centers for Disease Control and Prevention. Emergence of fluoroquinolone-resistant Neisseria meningitidis--Minnesota and North Dakota, 2007-2008. *Ann Emerg Med*. 2008;52(3):286-290.
3. Karaelias L*, Takhar SS. Commentary: Update on emerging infections: news from the Centers for Disease Control and Prevention. Invasive Haemophilus influenzae Type B disease in five young children – Minnesota, 2008. *Ann Emerg Med*. 2009;54(1):83-85.
4. Takhar SS, Hendey G. Orthopedic emergencies in HIV patients. *Emerg Med Clin North Am*. 2010;28(2):335-342.
5. Lane D, Takhar SS. Diagnosis and management of urinary tract infection and pyelonephritis. *Emerg Med Clin North Am*. 2011;29(3):539-552.
6. Takhar SS, Schriger DL, Barrett TW. Some think antibiotics are candy, but we know they’re not. *Ann Emerg Med*. 2012;59(5):440-441.
7. Maldonado NG*, Takhar SS. Commentary: Update on emerging infections: news from the Centers for Disease Control and Prevention. Update to CDC's Sexually Transmitted Diseases Treatment Guidelines, 2010: Oral Cephalosporins No Longer a Recommended Treatment for Gonococcal Infections. *Ann Emerg Med*. 2013;61(1):94-95.
8. Takhar SS, Moran G. Diagnosis and management of urinary tract infections in the emergency department and outpatient setting. *Infect Dis Clin North Am*. 2014;28(1):33-48.
9. Seethala R, Takhar SS. Clinicians need to implement all aspects of the current sepsis bundles, not just the ones they like. *Ann Emerg Med*. 2014;63(6):653-654.
10. Hildreth AF*, Takhar SS, Clark MA, Hatten B. Evidence-based evaluation and management of patients with pharyngitis in the emergency department. *Emerg Med Pract*. 2015;17(9):1-16.
11. Silvestri D*, Takhar SS. Sex, drugs, hepatitis C, and an urban emergency department: January 2016 Annals of Emergency Medicine Journal Club. *Ann Emerg Med*. 2016;67(1):138-140.
12. Silvestri D*, Takhar SS. Sex, drugs, hepatitis C, and an urban emergency department: answers to the January 2016 Journal Club questions. *Ann Emerg Med*. 2016;67(6):777-784.
13. Takhar SS. Epidemiologic and clinical characteristics of monkeypox cases–United States, May 17-July 22, 2022. *Ann Emerg Med*. 2023;81(1):31-34.

Non-Peer-Reviewed Publications (Book Chapters, Monographs, etc.)

1. Takhar SS, Moran G. Emerging infections. In: Votey SR, Davis SA, eds. *Signs and Symptoms in Emergency Medicine*. 2nd ed. Elsevier Health Sciences; 2006.
2. Takhar SS, Cooper R. Sore throat. In: Votey SR, Davis SA, eds. *Signs and Symptoms in Emergency Medicine*. 2nd ed. Elsevier Health Sciences; 2006.
3. Takhar SS, Moran G. Bites. In: Chin R, ed. *Emergency Management of Infectious Disease*. Cambridge University Press; 2008.
4. Takhar SS. Acute ear infections in the adult. In: Wolfson A, ed. *Harwood-Nuss' Clinical Practice of Emergency Medicine*. Lippincott Williams & Wilkins; 2010.
5. Takhar SS. Upper GI bleeding. In: Wolfson A, ed. *Harwood-Nuss' Clinical Practice of Emergency Medicine*. Lippincott Williams & Wilkins; 2010.
6. Takhar SS, Moran G. Disseminated viral infections. In: Tintinalli J, et al., eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide*. 7th ed. McGraw-Hill; 2011.
7. Venkat A, Takhar SS. HIV-positive adults on HAART. In: Venkat A, ed. *Challenging and Emerging Conditions in Emergency Medicine*. John Wiley & Sons; 2011.
8. Karaelias L, Takhar SS. Systemic infectious disorders. In: Promes S, ed. *Tintinalli's Emergency Medicine Examination & Board Review*. 7th ed. McGraw-Hill; 2013.
9. Takhar SS, O'Laughlin K. HIV/AIDS. In: Marx JA, et al., eds. *Rosen's Emergency Medicine: Concepts and Clinical Practice*. 8th ed. Saunders; 2013.
10. Kosowsky J, Takhar SS. Endocarditis, valvular disease, and rheumatic fever. In: Marx JA, et al., eds. *Rosen's Emergency Medicine: Concepts and Clinical Practice*. 8th ed. Saunders; 2013.
11. Cole M, Takhar SS. Upper GI bleeding. In: Wolfson A, ed. *Harwood-Nuss' Clinical Practice of Emergency Medicine*. 6th ed. Lippincott Williams & Wilkins; 2014.
12. Cole M, Takhar SS. Acute ear infections in the adult. In: Wolfson A, ed. *Harwood-Nuss' Clinical Practice of Emergency Medicine*. 6th ed. Lippincott Williams & Wilkins; 2014.
13. Takhar SS, Moran G. Serious viral infections. In: Tintinalli J, et al., eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide*. 8th ed. McGraw-Hill; 2014.
14. Kosowsky J, Takhar SS. Endocarditis, valvular disease, and rheumatic fever. In: Walls RM, et al., eds. *Rosen's Emergency Medicine: Concepts and Clinical Practice*. 9th ed. Elsevier; 2017.
15. Takhar SS, Chen R. HIV/AIDS. In: Walls RM, et al., eds. *Rosen's Emergency Medicine: Concepts and Clinical Practice*. 9th ed. Elsevier; 2017.
16. Seethala R, Takhar SS. Viral infections. In: Walls RM, et al., eds. *Rosen's Emergency Medicine: Concepts and Clinical Practice*. 9th ed. Elsevier; 2017.
17. Takhar SS. Infectious disorders. In: *Audio Digest Emergency Medicine Board Review*. Audio Digest; 2017.
18. Shakeri N, Takhar SS. Lyme disease and other spirochetal zoonoses. In: *Scientific American Emergency Medicine*. Decker; 2018.
19. West H, Takhar SS. Bites. In: Chin R, ed. *Emergency Management of Infectious Disease*. 2nd ed. Cambridge University Press; 2018.
20. Abboud M, Takhar SS. Endocarditis. In: Weinstock M, ed. *Bouncebacks! Emergency Department Cases: ED Returns*. Anadem Publishing; 2018.
21. Takhar SS, Moran G. Serious viral infections. In: Tintinalli J, et al., eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide*. 9th ed. McGraw-Hill; 2019.
22. Seethala R, Takhar SS. Viral infections. In: Walls RM, et al., eds. *Rosen's Emergency Medicine: Concepts and Clinical Practice*. 10th ed. Elsevier; 2022.
23. Cole M, Takhar SS. Upper GI bleeding. In: Wolfson A, ed. *Harwood-Nuss' Clinical Practice of Emergency Medicine*. 7th ed. Lippincott Williams & Wilkins; 2020.
24. Cole M, Takhar SS. Acute ear infections in the adult. In: Wolfson A, ed. *Harwood-Nuss' Clinical Practice of Emergency Medicine*. 7th ed. Lippincott Williams & Wilkins; 2020.

25. Takhar SS, Moran G. COVID-19. In: Tintinalli J, et al., eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide*. 9th ed. McGraw-Hill; 2019 (online supplement).
26. Seethala R, Takhar SS. Coronaviruses including COVID-19. In: Walls RM, et al., eds. *Rosen's Emergency Medicine: Concepts and Clinical Practice*. 10th ed. Elsevier; 2022.