

Dr. Rumina Hasan

Section of Microbiology

Department of Pathology and Laboratory Medicine

SUMMARY:

Publication	211
Book Chapters	06
CONTRIBUTIONS TO REPORTS, GUIDELINES AND POLICY DOCUMENTS:	34

Publications:**Year 2023:**

1. Socioecological factors linked with pharmaceutical incentive-driven prescribing in Pakistan. Noor MN, Rahman-Shepherd A, Siddiqui AR, Aftab W, Shakoor S, **Hasan R** and Khan M. *BMJ Glob Health*. 2023 Feb;6(Suppl 3):e010853. DOI: [10.1136/bmjgh-2022-010853](https://doi.org/10.1136/bmjgh-2022-010853).
2. The Landscape of Stem Cell Research in Pakistan. Ahmad S, Zeeshan S, Hussain A, **Hasan R**, Ghias K, Mian A and Enam SA. *J Pak Med Assoc*. 2023 Feb;73(Suppl 1)(2):S19-S24. DOI: [10.47391/JPMA.AKUS-04](https://doi.org/10.47391/JPMA.AKUS-04).
3. Author Correction: Genomic analysis of sewage from 101 countries reveals global landscape of antimicrobial resistance. Munk P, Brinch C, Møller FD, Petersen TN, Hendriksen RS, Seyfarth AM, Kjeldgaard JS, Svendsen CA, van Bunnik B, Berglund F; Global Sewage Surveillance Consortium; Larsson DGJ, Koopmans M, Woolhouse M, Aarestrup FM. *Nat Commun*. 2023 Jan 12;14(1):178. DOI: [10.1038/s41467-023-35890-w](https://doi.org/10.1038/s41467-023-35890-w). Collaborators **Rumina Hasan**

Year 2022:

4. Comparative Analysis of Commercially Available Typhoid Point-of-Care Tests: Results of a Prospective and Hybrid Retrospective Multicenter Diagnostic Accuracy Study in Kenya and Pakistan. Sapkota J, **Hasan R**, Onsare R, Arafah S, Kariuki S, Shakoor S, Qamar F, Mundalo S, Njeru F, Too R, Ndegwa E, Andrews JR and Dittrich S. *J Clin Microbiol*. 2022 Nov 30:e0100022. DOI: [10.1128/jcm.01000-22](https://doi.org/10.1128/jcm.01000-22).
5. Genomic analysis of sewage from 101 countries reveals global landscape of antimicrobial resistance. Munk P, Brinch C, Møller FD, Petersen TN, Hendriksen RS, Seyfarth AM, Kjeldgaard JS, Svendsen CA, van Bunnik B, Berglund F; Global Sewage Surveillance Consortium, Larsson DGJ, Koopmans M, Woolhouse M, Aarestrup FM. *Nat Commun*. 2022 Dec 1;13(1):7251. DOI: [10.1038/s41467-022-34312-7](https://doi.org/10.1038/s41467-022-34312-7). Collaborator **Rumina Hasan**

6. Impact of a multifaceted intervention on physicians' knowledge, attitudes and practices in relation to pharmaceutical incentivisation: protocol for a randomised control trial. Noor MN, Khan M, Rahman-Shepherd A, Siddiqui AR, Khan SS, Azam I, Shakoor S and **Hasan R**. 2022 Nov 4;12(11):e067233. DOI: [10.1136/bmjopen-2022-067233](https://doi.org/10.1136/bmjopen-2022-067233).
7. The healthcare field as a marketplace: general practitioners, pharmaceutical companies, and profit-led prescribing in Pakistan. Noor MN, Liverani M, Bryant J, Rahman-Shepherd A, Sharif S, Aftab W, Shakoor S, Khan M and **Hasan R**. *Health Sociol Rev.* 2022 Nov 2:1-15. DOI: [10.1080/14461242.2022.2139628](https://doi.org/10.1080/14461242.2022.2139628).
8. Exploring stakeholders' experiences and perceptions regarding barriers to effective surveillance of communicable diseases in a rural district of Pakistan: a qualitative study. Naeem I, Siddiqi S, Siddiqui AR, and **Hasan R**. *BMJ Open.* 2022 Nov 11;12(11):e067031. DOI: [10.1136/bmjopen-2022-067031](https://doi.org/10.1136/bmjopen-2022-067031).
9. The healthcare field as a marketplace: general practitioners, pharmaceutical companies, and profit-led prescribing in Pakistan. Noor MN, Liverani M, Bryant J, Rahman-Shepherd A, Sharif S, Aftab W, Shakoor S, Khan M, and **Hasan R**. DOI: [10.1080/14461242.2022.2139628](https://doi.org/10.1080/14461242.2022.2139628).
10. Impact of a multifaceted intervention on physicians' knowledge, attitudes and practices in relation to pharmaceutical incentivisation: protocol for a randomised control trial. Noor MN, Khan M, Rahman-Shepherd A, Siddiqui AR, Khan SS, Azam I, Shakoor S and **Hasan R**. *BMJ Open.* 2022 Nov 4;12(11):e067233. DOI: [10.1136/bmjopen-2022-067233](https://doi.org/10.1136/bmjopen-2022-067233).
11. Bedaquiline resistant Mycobacterium tuberculosis clinical isolates with and without rv0678 mutations have similar growth patterns under varying BDQ drug pressure. Saeed DK, Ashraf J, Hasan Z, Shakoor S, Kanji A and **Hasan R**. *Tuberculosis (Edinb).* 2022 Sep 28;137:102266. DOI: [10.1016/j.tube.2022.102266](https://doi.org/10.1016/j.tube.2022.102266).
12. Variants associated with Bedaquiline (BDQ) resistance identified in Rv0678 and efflux pump genes in Mycobacterium tuberculosis isolates from BDQ naïve TB patients in Pakistan. Saeed DK, Shakoor S, Razzak SA, Hasan Z, Sabzwari SF, Azizullah Z, Kanji A, Nasir A, Shafiq S, Ghanchi NK and **Hasan R**. *BMC Microbiol.* 2022 Feb 25;22(1):62. DOI: [10.1186/s12866-022-02475-4](https://doi.org/10.1186/s12866-022-02475-4).
13. External quality assessment (EQA) combined with on-site technical evaluation for capacity building in clinical microbiology laboratories in Pakistan. Saeed N, Zeeshan M, Saeed DK, **Hasan R et al.** *Accreditation and Quality Assurance.* 2022 March; 27, 103-110. DOI: [10.1007/s00769-022-01495-x](https://doi.org/10.1007/s00769-022-01495-x).
14. Open online course for laboratory detection of Antimicrobial Resistance (AMR) in Pakistan. Saeed N, Zeeshan M, Farooqi J, Shakoor S, Jabeen K, Malik FR, Rao J and **Hasan R**. *Front Public Health.* 2022 Mar 15;10:773704. DOI: [10.3389/fpubh.2022.773704](https://doi.org/10.3389/fpubh.2022.773704).

15. Bedaquiline Drug Resistance Emergence Assessment in MDR-TB (DREAM): a 5-Year Prospective In-Vitro Surveillance Study of Bedaquiline and Other Second-Line Drug Susceptibility Testing in MDR-TB Isolates. Kaniga K, **Hasan R**, Jou R, Vasiliauskienė E, Chuchottaworn C, Ismail N, Metchock B, Miliauskas S, Viet Nhung N, Rodrigues C, Shin S, Simsek H, Smithtikarn S, Ngoc ALT, Boonyasopun J, Kazi M, Kim S, Kamolwat P, Musteikiene G, Sacopon CA, Tahseen S, Vasiliauskaitė L, Wu MH and Vally Omar S. *Journal of Clinical Microbiology*. 2022 Jan 19;60(1):e0291920. DOI: [10.1128/JCM.02919-20](https://doi.org/10.1128/JCM.02919-20).
16. Evolutionary history and introduction of SARS-CoV-2 Alpha VOC/B.1.1.7 in Pakistan through international travelers. Nasir A, Bukhari AR, Trovão NS, Thielen PM, Kanji A, Mahmood SF, Ghanchi NK, Ansar Z, Merritt B, Mehoke T, Razzak SA, Syed MA, Shaikh SR, Wassan M, Aamir UB, Baele G, Rasmussen Z, Spiro D, **Hasan R** and Hasan Z. *Virus Evol*. 2022 Mar 17;8(1):veac020. DOI: [10.1093/ve/veac020](https://doi.org/10.1093/ve/veac020).
17. Characterisation of drug-resistant Mycobacterium tuberculosis mutations and transmission in Pakistan. Napier G, Khan AS, Jabbar A, Khan MT, Ali S, Qasim M, Mohammad N, **Hasan R**, Hasan Z, Campino S, Ahmad S, Khattak B, Waddell SJ, Khan TA, Phelan JE and Clark TG. *Scientific Reports*. 2022 May 11;12(1):7703. DOI: [10.1038/s41598-022-11795-4](https://doi.org/10.1038/s41598-022-11795-4).
18. How conflicts of interest hinder effective regulation of healthcare: an analysis of antimicrobial use regulation in Cambodia, Indonesia and Pakistan. Khan M, Rahman-Shepherd A, Bory S, **Hasan R et al**. *BMJ Global Health*. 2022;7:e008596. <https://gh.bmj.com/content/bmjgh/7/5/e008596.full.pdf>.

Year 2021

19. Concordance between phenotypic resistance to fluoroquinolones and gyrA mutations among rifampicin-resistant isolates of Mycobacterium Tuberculosis complex from Pakistan. Umar S, Sabzwari AS, Ehtesham S, Ali I, Azizullah Z, Wajidali Z, Shafeeq S, **Hassan R** and Shakoor S. *Infectious Diseases Journal*. January-March 2020; 29 (1). (published Jan 2021) <https://www.mmisp.com/wp-content/uploads/2021/02/1st-Issue-Jan-Mar-2020.pdf>.
20. Antimicrobial resistance and COVID-19: intersections and implications. Knight GM, Glover RE, McQuaid CF, Olaru ID, Gallandat K, Leclerc QJ, Fuller NM, Willcocks SJ, **Hasan R**, van Kleef E and Chandler CI. *Elife*. 2021 Feb 16;10:e64139. DOI: [10.7554/eLife.64139](https://doi.org/10.7554/eLife.64139).
21. Pandemic preparedness requires better regulation and stewardship of private providers that dominate provision of primary health care. Khan MS, Shepherd AR, Mark NVD, Dar O and **Hasan R**. *WHO South-East Asia Journal of Public Health*. February 2021;10(1):S1–S99. <https://apps.who.int/iris/handle/10665/351486>.

22. Extraintestinal Seeding of *Salmonella enterica* Serotype Typhi, Pakistan. Irfan S, Zeeshan M, Rattani S, Farooqi J, Shakoor S, **Hasan R** and Zafar A. *Emerg Infect Dis*. 2021 Mar;27(3):936-938. https://wwwnc.cdc.gov/eid/article/27/3/20-0464_article.
23. Female genital tuberculosis in Pakistan. A retrospective review of 10 year laboratory data and analysis of 32 cases. Fatima T, **Hasan R**, Malik FR, Ahmed I, Bartlett LA, Gravett MG and Shakoor S. *The International Journal of Mycobacteriology*. *Int J Mycobacteriol*. Jan-Mar 2021;10(1):66-70. DOI: [10.4103/ijmy.ijmy_6_21](https://doi.org/10.4103/ijmy.ijmy_6_21).
24. Trends of Carbapenem Non-susceptibility among Enterobacteriales in Critical Care and Non-Critical Care Unit at a Tertiary Care Hospital in Karachi, Pakistan. Umar U, Zeeshan M, Farooqi J and Hasan R. *Infectious Diseases Journal of Pakistan (IDJ)*. 2021.
25. Variations in regulations to control standards for training and licensing of physicians: a multi-country comparison. Aftab W, Khan M, Rego S, Chavan N, Rahman-Shepherd A, Sharma I, Wu S, Zeinali Z, Hasan R and Siddiqi S. *Hum Resour Health*. 2021 Jul 23;19(1):91. DOI: [10.1186/s12960-021-00629-5](https://doi.org/10.1186/s12960-021-00629-5).
26. Increase in Penicillin and multidrug resistance in *Streptococcus pneumoniae* (1993-2016): report from a tertiary care hospital laboratory, Pakistan. Zafar A, Lalani FK, Longi AA, Jajja MR, Haider M, Hashmi S, Khan E, Irfan S, Hussain T, Hussain FR, **Hasan R** and Jabeen K. *Journal of the Pakistan Medical Association*. 2021 Dec;71(12):2726-2730. <https://jpma.org.pk/article-details/11003>.
27. Discrepancy between PCR based SARS-CoV-2 tests suggests the need to re-evaluate diagnostic assays. Mushtaq MZ, Shakoor S, Kanji A, Shaheen N, Nasir A, Ansar Z, Ahmed I, Mahmood SF, **Hasan R** and Hasan Z. *BMC Res Note*. 2021 Aug 17;14(1):316. DOI: [10.1186/s13104-021-05722-5](https://doi.org/10.1186/s13104-021-05722-5).
28. Higher entropy observed in SAR-CoV-2 genomes from the first COVID-19 wave in Pakistan. Ghanchi NK, Nasir A, Masood KI, Abidi SH, Mahmood SF, Kanji A, Razzak S, Khan W, Shahid S, Yameen M, Raza A, Ashraf J, Ansar Z, Dharejo MB, Islam N, Hasan Z and **Hasan R**. *PLOS ONE*. 2021 Aug 31;16(8):e0256451. DOI: [10.1371/journal.pone.0256451](https://doi.org/10.1371/journal.pone.0256451).
29. Antimicrobial resistance among GLASS priority pathogens from Pakistan: 2006-2018. Saeed DK, Farooqi J, Shakoor S and **Hasan R**. *BMC Infectious Diseases* (2021) 21:1231. <https://doi.org/10.1186/s12879-021-06795-0>.
30. Lipid A-Ara4N as an alternate pathway for (colistin) resistance in *Klebsiella pneumoniae* isolates in Pakistan. Masood KI, Umar S, Hasan Z, Farooqi J, Razzak SA, Jabeen N, Rao J, Shakoor S and **Hasan R**. *BMC Research Notes*. 2021 Dec 14;14(1):449. DOI: [10.1186/s13104-021-05867-3](https://doi.org/10.1186/s13104-021-05867-3).

31. Importance of next-generation diagnostics in control of tuberculosis in LMICs. Hasan Z, Shakoor S, Hasan R. *EBioMedicine*. 2021 Dec;74:103753.
DOI: [10.1016/j.ebiom.2021.103753](https://doi.org/10.1016/j.ebiom.2021.103753).

Year 2020

32. Validation of Bedaquiline Phenotypic Drug Susceptibility Testing Methods and Breakpoints: A Multilibrary, Multicounty Study. Kaniga K, Aono A, Borroni E, Cirillo DM, Desmaretz C, **Hasan R**, Joseph L, Mitarai S, Shakoor S, Torrea G, Ismail NA, Omar SV. *J Clin Microbiol*. 2020 Mar 25;58(4):e01677-19. DOI: [10.1128/JCM.01677-19](https://doi.org/10.1128/JCM.01677-19).
33. Is enhancing the professionalism of healthcare providers critical to tackling antimicrobial resistance in low- and middle-income countries? Khan MS, Bory S, Rego S, Suy S, Durrance-Bagale A, Sultana Z, Chhorn S, Phou S, Prien C, Heng S, Hanefeld J, **Hasan R** and Saphonn V. *Hum Resour Health*. 2020 Feb 11;18(1):10. DOI: [10.1186/s12960-020-0452-7](https://doi.org/10.1186/s12960-020-0452-7).
34. Nontuberculous Mycobacterial Infections - a neglected and emerging problem. Ahmed I, Tiberi S, Farooqi J, Jabeen K, Yeboah-Manu D, Migliori GB and **Hasan R**. *Int J Infect Dis*. 2020 Mar; 92S:S46-S50. DOI: [10.1016/j.ijid.2020.02.022](https://doi.org/10.1016/j.ijid.2020.02.022).
35. Post TB treatment infectious complications. Hsu D, Irfan M, Jabeen K, Iqbal N, **Hasan R**, Migliori GB, Zumla A, Visca D, Centis R and Tiberi S. *Int J Infect Dis*. 2020 Mar; 92S:S41-S45. DOI: [10.1016/j.ijid.2020.02.032](https://doi.org/10.1016/j.ijid.2020.02.032).
36. Commemorating World TB Day 2020: "IT'S TIME" - It's Time to End the Global TB Epidemic. (Editorial). Tiberi S, Migliori GB, Muhwa Chakaya J, Kaesava T, Al Abri SS, Wejse C, Goletti D, Kapata N, Sotgiu G, Bomanji J, Zellweger JP, **Hasan R**, Irfan M, Ahmed I, Pshenichnaya N, Vasilieva I, Yeboah- Manu D, Alffenaar JW, Kim HY, Centis R, Cirillo DM, Alagna R, D'Ambrosio L, Cui X, Cao B, Maeurer M, Harries AD, Ippolito G, Raviglione M, Zumla A, Petersen E. Commemorating World TB Day 2020: "IT'S TIME" - It's Time to End the Global TB Epidemic. (Editorial). *Int J Infect Dis*. 2020 Mar;92S: S1- S4. DOI: [10.1016/j.ijid.2020.03.001](https://doi.org/10.1016/j.ijid.2020.03.001).
37. What are the barriers to implementing national antimicrobial resistance actions plans? A novel mixed-methods policy analysis in Pakistan. Khan MS, Durrance-Bagale A, Mateus A, Sultana Z, **Hasan R** and Hanefeld J. *Health Policy and Planning*. 2020 Oct 1;35(8):973-982. DOI: [10.1093/heapol/czaa065](https://doi.org/10.1093/heapol/czaa065).
38. Setting a baseline for global urban virome surveillance in sewage. Nieuwenhuijse DF, Oude Munnink BB, Phan MVT, et al. (including **Rumina Hasan** as part of Global Sewage Surveillance project consortium). *Sci Rep*. 2020 Aug 13;10(1):13748.

DOI: [10.1038/s41598-020-69869-0](https://doi.org/10.1038/s41598-020-69869-0).

39. Eggerthella lenta bacteraemia in endometrial adenocarcinoma - a case report from Pakistan. Fatima T, **Hasan R** and Tariq S. J Pak Med Assoc. 2020 Jun;70(6):1079-10. DOI: [10.5455/JPMA.285088](https://doi.org/10.5455/JPMA.285088).
40. A Multimethod, Multicountry Evaluation of Breakpoints for Bedaquiline Resistance Determination. Ismail NA, Aono A, Borroni E, Cirillo DM, Desmaretz C, **Hasan R**, Mitarai S, Shakoor S, Torrea G, Kaniga K and Omar SV. Antimicrob Agents Chemother. 2020 Aug 20;64(9):e00479-20. DOI: [10.1128/AAC.00479-20](https://doi.org/10.1128/AAC.00479-20).
41. Covid-19, misinformation, and antimicrobial resistance. Arshad M, Mahmood SF, Khan M and **Hasan R**. BMJ. 2020 Nov 24;371:m4501. DOI: [10.1136/bmj.m4501](https://doi.org/10.1136/bmj.m4501).
42. Breakpoint broth microdilution plate' for susceptibility testing of Gram-negative bacilli against colistin sulfate. Ahmed I, Laiq S, Shaheen N, Wahab K, Farooqi J, Shahid A, **Hasan R** and Shakoor S. Practical Laboratory Medicine. 2020 Nov 24;22:e00192. DOI: [10.1016/j.plabm.2020.e00192](https://doi.org/10.1016/j.plabm.2020.e00192).

Year 2019

43. Efflux pump as alternate mechanism for drug resistance in Mycobacterium tuberculosis. Kanji A, **Hasan R** and Hasan Z. Indian J Tuberc. 2019 Jan;66(1):20-25. DOI: [10.1016/j.ijtb.2018.07.008](https://doi.org/10.1016/j.ijtb.2018.07.008).
44. Ceftriaxone-resistant Salmonella Typhi Outbreak in Hyderabad City of Sindh, Pakistan: High Time for the Introduction of Typhoid Conjugate Vaccine. Yousafzai MT, Qamar FN, Shakoor S, Saleem K, Lohana H, Karim S, Hotwani A, Qureshi S, Masood N, Rauf M, Khanzada JA, Kazi M and **Hasan R**. Clin Infect Dis. 2019 Feb 15;68(Suppl 1):S16-S21. DOI: [10.1093/cid/ciy877](https://doi.org/10.1093/cid/ciy877).
45. Utility of the microcolony method for evaluation of multidrug-resistant tuberculosis patients in Karachi, Pakistan. Irfan S, Rao N, Irfan M, Iftikhar I, Azizullah Z, Jabeen K and **Hasan R**. The International Journal of Tuberculosis and Lung Disease. 2019 Jul 1;23(7):838-843. DOI: [10.5588/ijtld.18.0600](https://doi.org/10.5588/ijtld.18.0600).
46. Global monitoring of antimicrobial resistance based on metagenomics analyses of urban sewage. Hendriksen RS, Munk P, Njage P, van Bunnik B, McNally L, Lukjancenko O, Röder T, Nieuwenhuijse D, Pedersen SK, Kjeldgaard J, Kaas RS, Clausen PTL, Vogt JK, Leekitcharoenphon P, van de Schans MGM, Zuidema T, de Roda Husman AM, Rasmussen S, Petersen B; Global Sewage Surveillance project consortium, Amid C, Cochrane G, Sicheritz-Ponten T, Schmitt H, Alvarez JRM, Aidara-Kane A, Pamp SJ, Lund O, Hald T, Woolhouse M, Koopmans MP, Vigre H, Petersen TN and Aarestrup FM. (including **Rumina Hasan** as part of Global Sewage Surveillance project

- consortium). 2019 Mar 8;10(1):1124. DOI: [10.1038/s41467-019-08853-3](https://doi.org/10.1038/s41467-019-08853-3).
47. Common Alternative Diagnoses among a Pediatric Hospital-Based Cohort Evaluated for Tuberculosis in Karachi, Pakistan: The Need for Facilitated Referral in Tuberculosis Clinics. Shakoor S, Mir F and **Hasan R**. *Int J. of Mycobacteriology*. Jan-Mar 2019;8(1):42-47. DOI: [10.4103/ijmy.ijmy_8_19](https://doi.org/10.4103/ijmy.ijmy_8_19).
48. LMICs as reservoirs of AMR': a comparative analysis of policy discourse on antimicrobial resistance with reference to Pakistan. Khan MS, Durrance-Bagale A, Legido-Quigley H, Mateus A, **Hasan R**, Spencer J and Hanefeld J. *Health Policy Plan*. 2019 Apr 1;34(3):178-187. DOI: [10.1093/heapol/czz022](https://doi.org/10.1093/heapol/czz022).
49. Antimicrobial susceptibility against metronidazole and carbapenem in clinical anaerobic isolates from Pakistan. Shafquat Y, Jabeen K, Farooqi J, Mehmood K, Irfan S, **Hasan R** and Zafar A. *Antimicrobial Resistance & Infection Control*. 2019 Jun 14; 8:99. DOI: [10.1186/s13756-019-0549-8](https://doi.org/10.1186/s13756-019-0549-8).
50. Antibiotic-Resistant Enteric Infection. Shakoor S, Platts-Mills JA and **Hasan R**. In *Infectious Diseases Clinics of North America on Emerging and Re-Emerging Infections*. 2019 Dec;33(4): 1105-1123. DOI: [10.1016/j.idc.2019.05.007](https://doi.org/10.1016/j.idc.2019.05.007).
51. Accuracy of genotype MTBDRplus line probe assay in patients with tuberculous pleural effusion: comparison with clinical and culture-based diagnosis. Irfan M, Idrees F, Jabeen K, Zubairi ABS, Butt S and **Hasan R**. *Infect Dis (Lond)*. 2020 Apr;52(4):235-241. DOI: [10.1080/23744235.2019.1697462](https://doi.org/10.1080/23744235.2019.1697462).

Year 2018

52. Methylation in Mycobacterium tuberculosis is lineage specific with associated mutations present globally. Phelan J, de Sessions PF, Tientcheu L, Perdigao J, Machado D, **Hasan R**, Hasan Z, Bergval IL, Anthony R, McNerney R, Antonio M, Portugal I, Viveiros M, Campino S, Hibberd ML and Clark TG. *Scientific Reports*. 2018 Jan 9;8(1):160. DOI: [10.1038/s41598-017-18188-y](https://doi.org/10.1038/s41598-017-18188-y).
53. Genome-wide analysis of multi- and extensively drug-resistant Mycobacterium tuberculosis. Coll F, Phelan J, Hill-Cawthorne GA, Nair MB, Mallard K, Ali S, Abdallah AM, Alghamdi S, Alsomali M, Ahmed AO, Portelli S, Oppong Y, Alves A, Bessa TB, Campino S, Caws M, Chatterjee A, Crampin AC, Dheda K, Furnham N, Glynn JR, Grandjean L, Minh Ha D, **Hasan R**, Hasan Z, Hibberd ML, Joloba M, Jones-López EC, Matsumoto T, Miranda A, Moore DJ, Mocillo N, Panaiotov S, Parkhill J, Penha C, Perdigião J, Portugal I, Rchiad Z, Robledo J, Sheen P, Shesha NT, Sirgel FA, Sola C, Oliveira Sousa E, Streicher EM, Helden PV, Viveiros M, Warren RM, McNerney R, Pain A and Clark TG. *Nature Genetics*. 2018 Feb;50(2):307-316. DOI: [10.1038/s41588-017-0029-0](https://doi.org/10.1038/s41588-017-0029-0).

54. Emergence of an extensively drug-resistant (XDR) *Salmonella* Typhi harbouring a promiscuous plasmid encoding resistance to fluoroquinolones and third-generation cephalosporins. Klemm EJ, Shakoor S, Page AJ, Qamar FN, Judge K, Saeed DK, Wong VK, Dallman TJ, Nair S, Baker S, Shaheen G, Qureshi S, Yousafzai MT, Saleem MK, Hasan Z, Dougan G and **Hasan R**. *MBio*. 2018 Feb 20;9(1):e00105-18.
DOI: [10.1128/mBio.00105-18](https://doi.org/10.1128/mBio.00105-18).
55. Strengthening tuberculosis and antimicrobial resistance control programmes through integration. **Hasan R**, Shakoor S, Hanefeld J and Khan M. *Bull World Health Organ*. 2018 Mar 1;96(3):194-200. DOI: [10.2471/BLT.17.198614](https://doi.org/10.2471/BLT.17.198614).
56. Genetic sequencing for surveillance of drug resistance in tuberculosis in highly endemic countries: a multi-country population-based surveillance study. Zignol M, Cabibbe AM, Dean AS, Glaziou P, Alikhanova N, Ama C, Andres S, Barbova A, Borbe-Reyes A, Chin DP, Cirillo DM, Colvin C, Dadu A, Dreyer A, Driesen M, Gilpin C, **Hasan R**, Hasan Z, Hoffner S, Hussain A, Ismail N, Kamal SMM, Khanzada FM, Kimerling M, Kohl TA, Mansjö M, Miotto P, Mukadi YD, Mvusi L, Niemann S, Omar SV, Rigouts L, Schito M, Sela I, Seyfaddinova M, Skenders G, Skrahina A, Tahseen S, Wells WA, Zhurilo A, Weyer K, Floyd K and Raviglione MC. *Lancet Infect Dis*. 2018 Jun;18(6):675-683.
DOI: [10.1016/S1473-3099\(18\)30073-2](https://doi.org/10.1016/S1473-3099(18)30073-2).
57. Mycobacterium tuberculosis detection in pulmonary specimens from prospective immigrants; Laboratory data from Pakistan. Shafqat Y, Jabeen K, Irfan M, Wahad K and **Hasan R**. *Infectious Disease Journal of Pakistan*. 2018 Jul-Sept 27(3): 70-73.
58. Complete Genome Sequence of Buffalopox virus Isolated from Human Pock Lesions in Karachi, Pakistan in 2005. Afrough B, Zafar A, **Hasan R** and Hewson R. *Genome Announc*. 2018 May 24;6(21):e00444-18. DOI: [10.1128/genomeA.00444-18](https://doi.org/10.1128/genomeA.00444-18).
59. High heterotrophic counts in potable water and antimicrobial resistance among indicator organisms in two peri-urban communities of Karachi, Pakistan. Shakoor S, Ahmed I, Mukhtiar S, Ahmed I, Hirani F, Sultana S and **Hasan R**. *BMC Res Notes*. 2018 Jun 4;11(1):350. DOI: [10.1186/s13104-018-3461-z](https://doi.org/10.1186/s13104-018-3461-z).
60. Trends, Associations, and Antimicrobial Resistance of *Salmonella* Typhi and Paratyphi in Pakistan. Das JK, **Hasan R**, Zafar A, Ahmed I, Ikram A, Nizamuddin S, Fatima S, Akbar N, Sultan F and Bhutta ZA. *Am J Trop Med Hyg*. 2018 Sep;99(3_Suppl):48-54.
DOI: [10.4269/ajtmh.18-0145](https://doi.org/10.4269/ajtmh.18-0145).
61. Late diagnosis of Human Immunodeficiency Virus infections in high risk groups in Karachi, Pakistan. Hasan Z, Shah S, **Hasan R**, Rao S, Ahmed M, Stone M and Busch M. *International Journal of STD & AIDS*. 2018 Dec;29(14):1400-1406.
DOI: [10.1177/0956462418785264](https://doi.org/10.1177/0956462418785264).
62. Integrating standardized whole genome sequence analysis with a global *Mycobacterium*

tuberculosis antibiotic resistance knowledgebase. Ezewudo M, Borens A, Chiner-Oms Á, Miotto P, Chindelevitch L, Starks AM, Hanna D, Liwski R, Zignol M, Gilpin C, Niemann S, Kohl TA, Warren RM, Crook D, Gagneux S, Hoffner S, Rodrigues C, Comas I, Engelthaler DM, Alland D, Rigouts L, Lange C, Dheda K, **Hasan R**, McNerney R, Cirillo DM, Schito M, Rodwell TC and Posey J. *Scientific Reports*. 2020 Feb 21;10(1):3531. DOI: [10.1038/s41598-020-58955-y](https://doi.org/10.1038/s41598-020-58955-y).

63. Outbreak investigation of ceftriaxone-resistant *Salmonella enterica* serotype Typhi and its risk factors among the general population in Hyderabad, Pakistan: a matched case-control study. Qamar FN, Yousafzai MT, Khalid M, Kazi AM, Lohana H, Karim S, Khan A, Hotwani A, Qureshi S, Kabir F, Aziz F, Memon NM, Domki MH and **Hasan R**. *Lancet Infect Dis*. 2018 Dec;18(12):1368-1376. DOI: [10.1016/S1473-3099\(18\)30483-3](https://doi.org/10.1016/S1473-3099(18)30483-3).

Year 2017

64. Pattern of first- and second-line drug resistance among retreatment cases of pulmonary tuberculosis in Pakistan. Javaid A, **Hasan R**, Zafar A, Chaudry MA, Qayyum S, Qadeer E, Shaheen Z, Agha N, Rizvi N, Afridi MZ, Chima MK, Khan AR, Ghafoor A, Khan S, Awan SR, Akhtar S, Choudry K, Iqbal ZH, Ansarie M and Ahmad N. *International Journal of Tuberculosis and Lung Disease*. 2017 Mar 1;21(3):303-308. DOI: [10.5588/ijtld.16.0444](https://doi.org/10.5588/ijtld.16.0444).
65. Strategies for management of latent tuberculosis in endemic settings: building evidence. Shakoor S and **Hasan R**. *International Journal of Tuberculosis and Lung Disease*. 2017 Aug 1;21(8):836. DOI: [10.5588/ijtld.17.0310](https://doi.org/10.5588/ijtld.17.0310).
66. Rapid detection of in vitro antituberculous drug resistance among smear-positive respiratory samples using microcolony detection-based direct drug susceptibility testing method. Iftikhar I, Irfan S, Farooqi J, Azizullah Z and **Hasan R**. *International Journal of Mycobacteriology*. Apr-Jun 2017;6(2):117-121. DOI: [10.4103/ijmy.ijmy_41_17](https://doi.org/10.4103/ijmy.ijmy_41_17).
67. Diagnostic performance of GenoType® MTBDRplus line probe assay in bronchoalveolar lavage for pulmonary tuberculosis diagnosis in sputum scarce and smear-negative patients. Idrees F, Irfan M, Jabeen K, Farooqi J and **Hasan R**. *International Journal of Mycobacteriology*. Apr-Jun 2017;6(2):122-126. DOI: [10.4103/ijmy.ijmy_42_17](https://doi.org/10.4103/ijmy.ijmy_42_17).
68. Phenotypic low-level isoniazid resistance as a marker to predict ethionamide resistance in *Mycobacterium tuberculosis*. Qamar S, Farooqi JQ, Jabeen K and **Hasan R**. *International Journal of Mycobacteriology*. Apr-Jun 2017;6(2):167-170. DOI: [10.4103/ijmy.ijmy_34_17](https://doi.org/10.4103/ijmy.ijmy_34_17).
69. Frequency of colistin and fosfomycin resistance in carbapenem-resistant Enterobacteriaceae from a tertiary care hospital in Karachi. Qamar S, Shaheen N, Shakoor S, Farooqi J, Jabeen K and **Hasan R**. *Infection and Drug Resistance*. 2017 Jul

- 31;10:231-236. DOI: [10.2147/IDR.S136777](https://doi.org/10.2147/IDR.S136777).
70. Evaluation of Xpert MTB/RIF testing for rapid diagnosis of childhood pulmonary tuberculosis in children by Xpert MTB/RIF testing of stool samples in a low resource setting. Hasan Z, Shakoor S, Arif F, Mehnaz A, Akber A, Haider M, Kanji A and **Hasan R**. BMC Research Notes. 2017 Sep 8;10(1):473. DOI: [10.1186/s13104-017-2806-3](https://doi.org/10.1186/s13104-017-2806-3).
71. Single Nucleotide Polymorphisms in Efflux pumps genes in Extensively Drug Resistant Mycobacterium tuberculosis isolates from Pakistan. Kanji A, Hasan R, Ali A, Zaver A, Zhang Y, Imtiaz K, Shi W, Clark TG, McNerney R, Phelan J, Rao S, Shafiq S and **Hasan Z**. Tuberculosis. 2017 Dec;107:20-30. DOI: [10.1016/j.tube.2017.07.012](https://doi.org/10.1016/j.tube.2017.07.012).
72. Readiness for antimicrobial resistance (AMR) surveillance in Pakistan; a model for laboratory strengthening. Saeed DK, **Hasan R**, Naim M, Zafar A, Khan E, Jabeen K, Irfan S, Ahmed I, Zeeshan M, Wajidali Z, Farooqi J, Shakoor S, Chagla A and Rao J. Antimicrob Resist Infect Control. 2017 Sep 29;6:101. DOI: [10.1186/s13756-017-0260-6](https://doi.org/10.1186/s13756-017-0260-6).
73. A standardised method for interpreting the association between mutations and phenotypic drug- resistance in Mycobacterium tuberculosis. Miotto P, Tessema B, Tagliani E, Chindelevitch L, Starks AM, Emerson C, Hanna D, Kim PS, Liwski R, Zignol M, Gilpin C, Niemann S, Denkinge CM, Fleming J, Warren RM, Crook D, Posey J, Gagneux S, Hoffner S, Rodrigues C, Comas I, Engelthaler DM, Murray M, Alland D, Rigouts L, Lange C, Dheda K, **Hasan R**, Ranganathan UDK, McNerney R, Ezewudo M, Cirillo DM, Schito M, Köser CU and Rodwell TC. Rodwell. Eur Respir J. 2017 Dec 28;50(6):1701354. DOI: [10.1183/13993003.01354-2017](https://doi.org/10.1183/13993003.01354-2017).

Year 2016

74. Exploring the evidence base for national and regional policy interventions to combat resistance. Dar OA, **Hasan R**, Schlundt J, Harbarth S, Caleo G, Dar FK, Littmann J, Rweyemamu M, Buckley EJ, Shahid M, Kock R, Li HL, Giha H, Khan M, So AD, Bindayna KM, Kessel A, Pedersen HB, Permanand G, Zumla A, Røttingen JA and Heymann DL. The Lancet; Antimicrobials: access and sustainable effectiveness. Lancet. 2016 Jan 16;387(10015):285-95. DOI: [10.1016/S0140-6736\(15\)00520-6](https://doi.org/10.1016/S0140-6736(15)00520-6).
75. Flaviviruses as a Cause of Undifferentiated Fever in Sindh Province, Pakistan: A Preliminary Report. Khan E, Farooqi JQ, Barr KL, Prakoso D, Nasir A, Kanji A, Shakoor S, Malik FR, **Hasan R**, Lednicky JA and Long MT. Long. Frontiers in Public Health. 2016 Feb 16; 4:8. DOI: [10.3389/fpubh.2016.00008](https://doi.org/10.3389/fpubh.2016.00008).
76. Recombination in pe/ppe genes contributes to genetic variation in Mycobacterium tuberculosis lineages. Phelan JE, Coll F, Bergval I, Anthony RM, Warren R, Sampson

SL, Gey van Pittius NC, Glynn JR, Crampin AC, Alves A, Bessa TB, Campino S, Dheda K, Grandjean L, **Hasan R**, Hasan Z, Miranda A, Moore D, Panaiotov S, Perdigao J, Portugal I, Sheen P, de Oliveira Sousa E, Streicher EM, van Helden PD, Viveiros M, Hibberd ML, Pain A, McNerney R and Clark TG. BMC Genomics. 2016 Feb 29;17:151. DOI: [10.1186/s12864-016-2467-y](https://doi.org/10.1186/s12864-016-2467-y).

77. Antibiotic susceptibility in *Streptococcus pneumoniae*, *Haemophilus influenzae* and *Streptococcus pyogenes* in Pakistan: a review of results from the Survey of Antibiotic Resistance (SOAR) 2002–15. Zafar A, **Hasan R**, Nizamuddin S, Mahmood N, Mukhtar S, Ali F, Morrissey I, Barker K and Torumkuney D. Torumkuney. J Antimicrob Chemother. 2016 May;71 Suppl 1(Suppl 1):i103-9. DOI: [10.1093/jac/dkw076](https://doi.org/10.1093/jac/dkw076).
78. Barriers to Implementation of Optimal Laboratory Biosafety Practices in Pakistan. Shakoor S, Shafaq H, **Hasan R**, Qureshi SM, Dojki M, Hughes MA, Zaidi AK and Khan E. Health Secur. Jul-Aug 2016;14(4):214-9. DOI: [10.1089/hs.2016.0031](https://doi.org/10.1089/hs.2016.0031).
79. Population-based resistance of *Mycobacterium tuberculosis* isolates to pyrazinamide and fluoroquinolones: results from a multicountry surveillance project. Zignol M, Dean AS, Alikhanova N, Andres S, Cabibbe AM, Cirillo DM, Dadu A, Dreyer A, Driesen M, Gilpin C, **Hasan R**, Hasan Z, Hoffner S, Husain A, Hussain A, Ismail N, Kamal M, Mansjö M, Mvusi L, Niemann S, Omar SV, Qadeer E, Rigouts L, Ruesch-Gerdes S, Schito M, Seyfaddinova M, Skrahina A, Tahseen S, Wells WA, Mukadi YD, Kimerling M, Floyd K, Weyer K and Raviglione MC. Lancet Infect Dis. 2016 Oct;16(10):1185-1192. DOI: [10.1016/S1473-3099\(16\)30190-6](https://doi.org/10.1016/S1473-3099(16)30190-6).
80. Dissemination and spread of New Delhi Metallo-beta-lactamase-1 Superbugs in hospital settings. Khan E, Irfan S, Sultan BA, Nasir A and **Hasan R**. J Pak Med Assoc. 2016 Aug;66(8):999-1004.
81. Mycobacterial contamination of bronchoscopes: Challenges and possible solutions in low resource settings. DK Saeed, S Shakoor, S Irfan and **R Hasan**. International Journal of Mycobacteriology. 2016 Dec;5(4):408-411. DOI: [10.1016/j.ijmyco.2016.08.002](https://doi.org/10.1016/j.ijmyco.2016.08.002).
82. Extrapulmonary tuberculosis among females in South Asia – gap analysis. Mehraj J, Khan ZY, Saeed DK, Shakoor S and **Hasan R**. International Journal of Mycobacteriology. 2016 Dec;5(4):392-399. DOI: [10.1016/j.ijmyco.2016.09.054](https://doi.org/10.1016/j.ijmyco.2016.09.054).
83. Fluoroquinolone consumption and-resistance trends in *Mycobacterium tuberculosis* and other respiratory pathogens: Ecological antibiotic pressure and consequences in Pakistan, 2009–2015. S Shakoor, S Tahseen, K Jabeen, R Fatima, FR Malik, AH Rizvi and **R**

Hasan. Int J Mycobacteriol. 2016 Dec; 5(4):392-399.

DOI: [10.1016/j.ijmyco.2016.09.054](https://doi.org/10.1016/j.ijmyco.2016.09.054).

84. Fast Dissemination of New HIV-1 CRF02/A1 Recombinants in Pakistan. Chen Y, Hora B, DeMarco T, Shah SA, Ahmed M, Sanchez AM, Su C, Carter M, Stone M, **Hasan R**, Hasan Z, Busch MP, Denny TN and Gao F. PLoS One. 2016 Dec 14;11(12):e0167839. DOI: [10.1371/journal.pone.0167839](https://doi.org/10.1371/journal.pone.0167839).

Year 2015

85. Rapid determination of anti-tuberculosis drug resistance from whole-genome sequences. Coll F, McNerney R, Preston MD, Guerra-Assunção JA, Warry A, Hill-Cawthorne G, Mallard K, Nair M, Miranda A, Alves A, Perdigão J, Viveiros M, Portugal I, Hasan Z, **Hasan R**, Glynn JR, Martin N, Pain A and Clark TG. Genome Med. 2015 May 27;7(1):51. DOI: [10.1186/s13073-015-0164-0](https://doi.org/10.1186/s13073-015-0164-0).
86. Etiology of bacteremia in young infants in six countries. Hamer DH, Darmstadt GL, Carlin JB, Zaidi AK, Yeboah-Antwi K, Saha SK, Ray P, Narang A, Mazzi E, Kumar P, Kapil A, Jeena PM, Deorari A, Chowdury AK, Bartos A, Bhutta ZA, Adu-Sarkodie Y, Adhikari M, Addo-Yobo E, Weber MW; **Hasan R** as part of Young Infants Clinical Signs Study Group. Pediatr Infect Dis J. 2015 Jan; 34(1):e1-8. DOI: [10.1097/INF.0000000000000549](https://doi.org/10.1097/INF.0000000000000549).

Year 2014

87. Drug resistant tuberculosis: Challenges of urbanization. **Hasan R**. International Journal of Mycobacteriology. 2014 Jun;3(2):79-81. DOI: [10.1016/j.ijmyco.2014.01.005](https://doi.org/10.1016/j.ijmyco.2014.01.005).
88. Mycobacterium tuberculosis Central Asian Strain (CAS) lineage strains in Pakistan reveal lower diversity of MIRU loci than other strains. Ali A, Hasan Z, Jafri S, Inayat R and **Hasan R**. International Journal of Mycobacteriology. 2014 Jun;3(2):108-16. DOI: [10.1016/j.ijmyco.2014.03.002](https://doi.org/10.1016/j.ijmyco.2014.03.002).
89. Are TB control programmes in South Asia ignoring children with disease? A situational analysis. Shakoor S, Qamar FN, Mir F, Zaidi A and **Hasan R**. Arch Dis Child. 2015 Feb; 100(2): 198-205. DOI: [10.1136/archdischild-2013-304816](https://doi.org/10.1136/archdischild-2013-304816).
90. Whole genome sequencing based characterization of extensively drug-resistant Mycobacterium tuberculosis isolates from Pakistan. Ali A, Hasan Z, McNerney R, Mallard K, Hill-Cawthorne G, Coll F, Nair M, Pain A, Clark TG and **Hasan R**. PLoS One. 2015 Feb 26;10 (2): e0117771. DOI: [10.1371/journal.pone.0117771](https://doi.org/10.1371/journal.pone.0117771).
91. Characterization of genomic variations in SNPs of PE_PGRS genes reveals deletions and

insertions in extensively drug resistant (XDR) *M. tuberculosis* strains from Pakistan.

Kanji A, Hasan Z, Ali A, McNerney R, Mallard K, Coll F, Hill-Cawthorne G, Nair M, Clark TG, Zaver A, Jafri S and **Hasan R**. *Int J Mycobacteriol*. 2015 Mar;4(1):73-9.

DOI: [10.1016/j.ijmyco.2014.11.049](https://doi.org/10.1016/j.ijmyco.2014.11.049).

92. Fluoroquinolone resistant tuberculosis; implications in settings with weak healthcare systems. Jabeen K, Shakoor S and **Hasan R**. *Int J Mycobacteriol*. 2015 Mar;32:118-23.

DOI: [10.1016/j.ijid.2015.01.006](https://doi.org/10.1016/j.ijid.2015.01.006).

Year 2013

93. Community Acquired Pneumonia. Irfan M, Farooqi J and **Hasan R**. *Curr Opin Pulm Med*. 2013 May;19(3):198-208. DOI: [10.1097/MCP.0b013e32835f1d12](https://doi.org/10.1097/MCP.0b013e32835f1d12).

94. Susceptibility testing of extensively drug resistant and pre-extensively drug resistant *Mycobacterium tuberculosis* against levofloxacin, linezolid, and amoxicillin-clavulanate. Ahmed I, Jabeen K, Inayat R and **Hasan R**. *Antimicrob. Agents Chemother*. 2013 Jun;57(6):2522-5. DOI: [10.1128/AAC.02020-12](https://doi.org/10.1128/AAC.02020-12).

95. Tuberculosis comorbidity with communicable and non-communicable diseases: integrating health services and control efforts. Marais BJ, Lönnroth K, Lawn SD, Migliori GB, Mwaba P, Glaziou P, Bates M, Colagiuri R, Zijenah L, Swaminathan S, Memish ZA, Pletschette M, Hoelscher M, Abubakar I, **Hasan R**, Zafar A, Pantaleo G, Craig G, Kim P, Maeurer M, Schito M and Zumla A. *Lancet Infect Dis*. 2013 May;13 (5):436-48. DOI: [10.1016/S1473-3099\(13\)70015-X](https://doi.org/10.1016/S1473-3099(13)70015-X).

96. Unusual sex differences in tuberculosis notifications across Pakistan and the role of environmental factors. Khan MS, Khan MS, **Hasan R** and Godfrey-Faussett P. *Eastern Mediterranean Health Journal*. 2013; 19(9): 821-825.

97. Identification of non-tuberculous mycobacteria isolated from clinical specimens at a tertiary care hospital: a cross-sectional study. Ahmed I, Jabeen K and **Hasan R**. *BMC Infectious Diseases*. 2013, 13:493. DOI: [10.1186/1471-2334-13-493](https://doi.org/10.1186/1471-2334-13-493).

98. Non-tuberculous mycobacteria in extra-pulmonary specimens: role of nosocomial transmission in Pakistan. Ahmed I, Jabeen K and **Hasan R**. *European Respiratory Journal*. Sep 2014, 44 (Suppl 58) P2640.

https://erj.ersjournals.com/content/44/Suppl_58/P2640.

Year 2012

99. Dengue Infection in Asia; A Regional Concern. Khan K and **Hasan R**. *J. Postgraduate Medical Institute*. 2011 Dec. 29;26(1):01-06.

<https://www.jpmi.org.pk/index.php/jpmi/article/view/1195>.

100. Characterising mycobacterium tuberculosis isolates from Karachi, Pakistan: Drug resistance and genotypes. Ayaz A, Hasan Z, Jafri S, Inayat R, Mangi R, Channa AA, Malik FR, Ali A, Rafiq Y and **Hasan R**. International Journal of Infectious Diseases. 2012; 16(2012) e303-e309. DOI: [10.1016/j.ijid.2011.12.015](https://doi.org/10.1016/j.ijid.2011.12.015).
101. Detection of Helicobacter pylori using Molecular Genetic Assay. Rajper S, Khan E, Ahmad Z, Alam SMZ, Akbar A and **Hasan R**. Infectious Diseases Journal of Pakistan. 2012; 21 (1): 391-394.
102. Line probe assay for detection of rifampicin and isoniazid resistant tuberculosis in Pakistan. Farooqi JQ, Khan E, Alam SM, Ali A, Hasan Z and **Hasan R**. J. Pakistan Medical Association. 2012 Aug;62(8):767-72.
103. Overcoming drug resistant tuberculosis. **Hasan R**, Hasan Z and Tahseen S. European Infectious Disease. 2012; 6 (2).
<https://www.researchgate.net/publication/286474321>.
104. Childhood Tuberculosis in Household Contacts of Newly Diagnosed TB Patients. Batra S, Ayaz A, Murtaza A, Ahmad S, **Hasan R** and Pfau R. PLoS ONE. 2012; 7(7): e40880. DOI: [10.1371/journal.pone.0040880](https://doi.org/10.1371/journal.pone.0040880).
105. Risk factors for multidrug-resistant tuberculosis in urban Pakistan: A multicenter case–control study. Ahmad AM, Akhtar S, **Hasan R**, Khan JA, Hussain SF, Rizvi N. International Journal of Mycobacteriology. 2012 Sep;1(3):137-42.
DOI: [10.1016/j.ijmyco.2012.07.007](https://doi.org/10.1016/j.ijmyco.2012.07.007).
106. Multidrug resistant Mycobacterium tuberculosis amongst Category I & II failures and Category II relapse patients. Ghafoor A, Mehraj J, Afridi ND, Rafiq Y, Wendl-Richter HU, and **Hasan R**. International Journal of Mycobacteriology. 2012 Sep;1(3):118-23. DOI: [10.1016/j.ijmyco.2012.07.004](https://doi.org/10.1016/j.ijmyco.2012.07.004).
107. Tropical bacterial gastrointestinal infections. Shakoor S, Zaidi AK, and Hasan R. Infectious Diseases Clinics of North America. 2012 Jun;26(2):437-53.
DOI: [10.1016/j.idc.2012.02.002](https://doi.org/10.1016/j.idc.2012.02.002).
108. Effectiveness of Vi capsular polysaccharide typhoid vaccine among children: A cluster randomized trial in Karachi, Pakistan. Khan MI, Soofi SB, Ochiai RL, Habib MA, Sahito SM, Nizami SQ, Acosta CJ, Clemens JD, Bhutta ZA; **Rumina Hasan**, DOMI Typhoid Karachi Vi Effectiveness Study Group. Vaccine. 2012 Aug 3;30(36):5389-95.
DOI: [10.1016/j.vaccine.2012.06.015](https://doi.org/10.1016/j.vaccine.2012.06.015).
109. Invasive candidiasis in Pakistan: Clinical characteristics, species distribution and antifungal susceptibility. Farooqi JQ, Jabeen K, Saeed N, Iqbal N, Malik B, Lockhart SR, Zafar A, Brandt ME and **Hasan R**. J Med Microbiol. 2013 Feb;62(Pt 2):259-268.
DOI: [10.1099/jmm.0.048785-0](https://doi.org/10.1099/jmm.0.048785-0).
110. High Isoniazid Resistance Rates in Rifampicin Susceptible Mycobacterium

Tuberculosis Pulmonary Isolates from Pakistan. Fasih N, Rafiq Y, Jabeen K and **Hasan R**. PLoS One. 2012;7(11):e50551. DOI: [10.1371/journal.pone.0050551](https://doi.org/10.1371/journal.pone.0050551).

YEAR 2011

111. Occurrence of RD149 and RD152 deletions in *M. tuberculosis* strains from Pakistan. Kanji A, Hasan Z, Tanveer M, Laiq R and **Hasan R**. J Infect Dev Ctries. 2011 Mar 2;5(2):106-13. DOI: [10.3855/jidc.1112](https://doi.org/10.3855/jidc.1112).
112. *Rhinocladiella mackenziei* as an emerging cause of cerebral phaeohyphomycosis in Pakistan: a case series. Jabeen K, Farooqi J, Zafar A, Jamil B, Mahmood SF, Ali F, Saeed N, Barakzai A, Ahmed A, Khan E, Brandt ME and **Hasan R**. Clinical Infectious Diseases. 2011; 52(2): 213-217. DOI: [10.1093/cid/ciq114](https://doi.org/10.1093/cid/ciq114).
113. Fluoroquinolone-resistant *Mycobacterium tuberculosis*, Pakistan, (2005-2009). Jabeen K, Shakoor S, Chishti S, Ayaz A and **Hasan R**. Emerg Infect Dis. 2011 Mar;17(3):564-6. DOI: [10.3201/eid1703.100957](https://doi.org/10.3201/eid1703.100957).
114. Impact and challenges of infection control in a public sector intensive care unit: Experience from a low resourced country. Khan M, Haider S, Siddiqui S, Zafar A, Malik F and **Hasan R**. International Journal of Infection Control. 2010; 7(3). <https://doi.org/10.3396/ijic.v7i3.6333>.
115. Molecular and epidemiologic characterization of clinical isolates of carbapenem resistant *Acinetobacter baumannii* from public and private sector intensive care units in Karachi, Pakistan. Irfan S, Turton JF, Mehraj J, Siddiqui SZ, Haider S, Zafar A, Memon B, Afzal O and **Hasan R**. J Hosp Infect. 2011 Jun;78(2):143-8. DOI: [10.1016/j.jhin.2011.01.029](https://doi.org/10.1016/j.jhin.2011.01.029).
116. Primary Drug Resistance to Antituberculous Drugs in Punjab Pakistan. Javaid A, Awan S, Syed Z, Iqbal Z, Akram C, Shah K, Shaheen Z, Khan S, **Hasan R** and Zafar A. Pakistan J. Chest Medicine. 2011; Jan-Mar 17(1): 03-09. 09. <https://www.pjcm.net/index.php/pjcm/article/view/133>.
117. Presence of RD149 deletions in the *M. tuberculosis* Central Asian Strain1 isolates affects growth and TNF α induction in THP-1 monocytes. Kanji A, Hasan Z, Tanveer M, Mahboob R, Jafri S and **Hasan R**. PLoS One. DOI: [10.1371/journal.pone.0024178](https://doi.org/10.1371/journal.pone.0024178).
118. Genetic regulation of the ram A locus and its expression in clinical isolates of *Klebsiella pneumoniae*. Rosenblum R, Khan E, Gonzalez G, **Hasan R** and Schneiders T. Int J Antimicrob Agents. 2011 Jul;38 (1):39-45. DOI: [10.1016/j.ijantimicag.2011.02.012](https://doi.org/10.1016/j.ijantimicag.2011.02.012).
119. Characterization of mutations conferring extensive drug resistance (XDR) to *M. tuberculosis* isolates in Pakistan. Ali A, **Hasan R**, Jabeen K, Jabeen N, Qadeer E and Hasan Z. Antimicrobial Agents and Chemotherapy. 2011 Dec;55(12):5654-9.

DOI: [10.1128/AAC.05101-11](https://doi.org/10.1128/AAC.05101-11).

120. Mycobacterium tuberculosis Genotypes in patients developing pulmonary tuberculosis related acute respiratory distress syndrome. Salahuddin N, Tanveer M, Rao N, Akram S, Hasan Z and **Hasan R**. Sri Lanka Journal of Critical Care. 2011;2(1), 20–24.
<http://doi.org/10.4038/sljcc.v2i1.2370>.

YEAR 2010

121. Increase in isolation of extended spectrum beta-lactamase producing multidrug resistant non typhoidal Salmonella in Pakistan. Jabeen K, Zafar A, Irfan S, Khan E, Mehraj V and **Hasan R**. BMC Infectious Diseases. 2010 Apr 22;10:101. DOI: [10.1186/1471-2334-10-101](https://doi.org/10.1186/1471-2334-10-101).
122. Prevalence of Multi-drug resistance TB and its associated Risk factors in Karachi Pakistan. Ejaz M, Siddiqui AR, Rafiq Y, Malik F, Channa A, Mangi R, Habib F and **Hasan R**. Trans R Soc Trop Med Hyg. 2010 Aug; 104(8):511-7.
DOI: [10.1016/j.trstmh.2010.03.005](https://doi.org/10.1016/j.trstmh.2010.03.005).
123. In-vitro activity of tigecycline and other tetracyclines against carbapenem-resistant acinetobacter spp: report from a tertiary care centre in Karachi, Pakistan. Shakoor S, Khan E, Zafar A and **Hasan R**. Chemotherapy. 2010; 56(3):184-9.
DOI: [10.1159/000316328](https://doi.org/10.1159/000316328).
124. Increased isolation of ESBL producing Klebsiella pneumoniae with emergence of Carbapenam resistant isolates in Pakistan: Report from a tertiary care hospital laboratory. Khan E, Ejaz M, Zafar A, Jabeen K, Shakoor S, Inayat R and **Hasan R**. JPMA. 2010 Mar;60(3):186-90.
125. Emergence of CTX-M Group-1 ESBL Producing Klebsiella pneumoniae, from tertiary care center Karachi, Pakistan. Erum Khan, Thamarai Schneiders, Khan E, Schneiders T, Zafar A, Aziz E, Parekh A and **Hasan R**. J Infect Dev Ctries. 2010 Sep 3;4(8):472-6.
DOI: [10.3855/jidc.674](https://doi.org/10.3855/jidc.674).
126. Extensively Drug Resistant Tuberculosis, Pakistan. **Hasan R**, Jabeen K, Ali A, Rafiq Y, Laiq R, Malik B, Tanveer M, Groenheit R, Ghebremichael S, Hoffner S and Hasan Z. Emerg Infect Dis. 2010 Sep;16(9):1473-5. DOI: [10.3201/eid1609.100280](https://doi.org/10.3201/eid1609.100280).
127. Prevalent Genotypes of Methicillin Resistant Staphylococcus aureus; Report from Pakistan. Zafar A, Stone M, Ibrahim S, Parveen Z, Hasan Z, Khan E, **Hasan R**, Wain J and Bamford K. J. Med Microbiol. 2011 Jan;60(Pt 1):56-62.
DOI: [10.1099/jmm.0.022707-0](https://doi.org/10.1099/jmm.0.022707-0).
128. Demographic and Clinical Features of Dengue Fever in Pakistan from 2003-2007: A Retrospective Cross-sectional Study. Khan E, Kisat M, Khan N, Nasir A, Ayub S, Hasan

- R. PLOS One. 2010 Sep 13;5(9): e12505. DOI: [10.1371/journal.pone.0012505](https://doi.org/10.1371/journal.pone.0012505).
129. Burden of Haemophilus influenzae type b disease in Pakistani children. Zaidi AK, Khan H, Sherali AR, Lasi R; **Rumina Hasan**, Sindh Meningitis Study Group. East Mediterr Health J. 2010 Jun; 16(6):590-4.
130. Use of p-nitrobenzoic acid in 7H10 agar for identification of mycobacterium tuberculosis complex: a field study" (short communication). Shakoor S, Ahsan T, Jabeen K, Raza M and **Hasan R**. IJTLD. 2010 Dec;14(12):1644-6.
131. Fluoroquinolone resistance amongst Mycobacterium tuberculosis strains from Karachi, Pakistan; Data from community-based field clinics. Rafiq Y, Jabeen K, **Hasan R**, Jafri S, Laiq R, Malik F, Mangi R, Channa A and Hasan Z. Antimicrob Agents Chemother. 2011 Feb;55(2):929-30. DOI: [10.1128/AAC.00931-10](https://doi.org/10.1128/AAC.00931-10).
132. Cohort analysis of directly observed treatment outcomes for tuberculosis patients in urban Pakistan. Akhtar S, Rozi S, White F, **Hasan R**. IJTLD. 2011 Jan;15(1):90-6.
133. Inducible clindamycin resistance due to expression of erm genes in Staphylococcus aureus: Report from a Tertiary Care Hospital Karachi, Pakistan. Fasih N, Irfan S, Zafar A, Khan E and **Hasan R**. JPMA. 2010 Sep;60(9):750-3.
134. Clonal dissemination of VanA positive Enterococcus species in Tertiary Care Hospitals in Karachi, Pakistan. Fasih N, Zafar A, Khan E, Jabeen K and **Hasan R**. JPMA. 2010 Oct;60(10):805-9.

YEAR 2009

135. Variation in Salmonella enterica serovar Typhi IncHII plasmids during the global spread of resistant typhoid fever. Phan MD, Kidgell C, Nair S, Holt KE, Turner AK, Hinds J, Butcher P, Cooke FJ, Thomson NR, Titball R, Bhutta ZA, **Hasan R**, Dougan G and Wain J. Antimicrob Agents Chemother. 2009 Feb; 53(2):716-27.
DOI: [10.1128/AAC.00645-08](https://doi.org/10.1128/AAC.00645-08).
136. M. tuberculosis Central Asian Strain 1 MDR isolates have more mutations in rpoB and katG genes compared with other genotypes. Ali A, Hasan Z, Moatter T, Tanveer M and **Hasan R**. Scand J Infect Dis. 2010 Dec;42(11-12):953-4.
DOI: [10.1080/00365540802570519](https://doi.org/10.1080/00365540802570519) Correction: DOI: [10.3109/00365548.2010.525822](https://doi.org/10.3109/00365548.2010.525822).
137. Controlled Evaluation of BACTECTM PEDS PLUSTM/F and BACTECTM LYTIC/10 Anaerobic/F Media for the Isolation of Salmonella Typhi and Paratyphi A from Blood. Reller ME, Zaidi AK, Sultana S, Azeem S, Hanif B, Qureshi S, **Hasan R**, Bhutta Z, Akhter R and Goldmann DA. Clin Microbiol. 2009 Jan; 47(1):245-6.
DOI: [10.1128/JCM.01452-08](https://doi.org/10.1128/JCM.01452-08).

138. Frequency of isolation of various subtypes and antimicrobial resistance of Shigella from urban slums of Karachi, Pakistan. Zafar A, **Hasan R**, Nizami SQ, von Seidlein L, Soofi S, Ahsan T, Chandio S, Habib A, Bhutto N, Siddiqui FJ, Rizvi A, Clemens JD and Bhutta ZA. *Int J Infect Dis*. 2009 Nov;13(6):668-72. DOI: [10.1016/j.ijid.2008.10.005](https://doi.org/10.1016/j.ijid.2008.10.005).
139. Pseudogene accumulation in the evolutionary histories of Salmonella enterica serovars Paratyphi A and Typhi. Holt KE, Thomson NR, Wain J, Langridge GC, **Hasan R**, Bhutta ZA, Quail MA, Norbertczak H, Walker D, Simmonds M, White B, Bason N, Mungall K, Dougan G and Parkhill J. *BMC Genomics*. 2009 Jan 21; 10(1):36. DOI: [10.1186/1471-2164-10-36](https://doi.org/10.1186/1471-2164-10-36).
140. Trends of Mycobacterium Tuberculosis resistance in Pakistan (1990-2007). **Hasan R**, Jabeen K, Mehraj V, Zafar F, Malik F, Hassan Q, Azam I and Kadir MM. *Int J Infect Dis*. 2009 Nov;13(6):e377-82. DOI: [10.1016/j.ijid.2009.01.008](https://doi.org/10.1016/j.ijid.2009.01.008).
141. Infection control education: Impact on ventilator-associated pneumonia rates in an Intensive Care Unit of Pakistan. Khan MS, Siddiqui SZ, Haider S, Zafar A, Zafar F, Khan RN, Afshan K, Jabeen A, Khan MS and **Hasan R**. *Trans R Soc Trop Med Hyg*. 2009 Aug;103(8):807-11. DOI: [10.1016/j.trstmh.2009.03.002](https://doi.org/10.1016/j.trstmh.2009.03.002).
142. Reduced TNF- α and IFN- γ responses to Central Asian strain 1 and Beijing isolates of M.tuberculosis as compared with H37Rv. Tanveer M, Hasan Z, Kanji A, Hussain R and **Hasan R**. *Trans R Soc Trop Med Hyg*. 2009 Jun; 103(6):581-7. DOI: [10.1016/j.trstmh.2009.03.014](https://doi.org/10.1016/j.trstmh.2009.03.014).
143. Surveillance of pneumococcal meningitis among children in Sindh, southern Pakistan. Zaidi AK, Khan H, Lasi R, Mahesar W; **Rumina Hasan**, Sindh Meningitis Group. *Clin Infect Dis*. 2009 Mar 1;48 Suppl 2:S129-35. DOI: [10.1086/596491](https://doi.org/10.1086/596491).
144. Evaluation of two ELISA assay kits against RT-PCR for diagnosis of dengue virus infection in a hospital setting in Karachi, Pakistan. Khan E, Mehraj V, Nasir A, Khan NA, Billoo B, Moatter T and **Hasan R**. *J Pak Med Assoc*. 2009 Jun; 59(6):390-4.
145. Prevalence of ST26 among untreated smear-positive tuberculosis patients from Karachi indicating ongoing transmission. Shakoor S, Tanveer M, Rafiq Y, Hasan Z, Javed A, Rizvi N, Rehman N and **Hasan R**. *Scand J Infect Dis*. 2009 Aug 13:1-6. DOI: [10.1080/00365540903147019](https://doi.org/10.1080/00365540903147019).

YEAR 2008

146. Metallo- β -Lactamas-Producing Clinical Isolates of Acinetobacter spp. And Pseudomonas aeruginosa from Intensive Care Patients of a Tertiary Care Hospital. Irfan S, Zafar A, Guhar D, Ahsan T and **Hasan R**. *Indian Journal of Medical Microbiology*. Jul-Sep 2008;26(3):243-5. DOI: [10.4103/0255-0857.42035](https://doi.org/10.4103/0255-0857.42035).

147. Clinical signs that predict severe illness in children under the age of 2 months: a multi-centre study. As part of young infant study group. *Lancet*. 2008 Jan 12;371(9607):135-42. DOI: [10.1016/S0140-6736\(08\)60106-3](https://doi.org/10.1016/S0140-6736(08)60106-3).
148. Prevalence of primary multidrug resistance to anti-tuberculosis drugs in Pakistan. Javaid A, **Hasan R**, Zafar A, Ghafoor A, Pathan AJ, Rab A, Sadiq A, Akram CM, Burki I, Shah K, Ansari M, Rizvi N, Khan SU, Awan SR, Syed ZA, Iqbal ZH, Shaheen Z and Ur Rehman N. *Int J Tuberc Lung Dis*. 2008 Mar; 12(3):326-31.
149. Increased frequency of isolation of *Vibrio cholerae* O1 serotype Inaba replacing prevailing serotype Ogawa in Karachi, Pakistan. Jabeen K, Zafar A and **Hasan R**. *Eastern Mediterranean Health Journal*. May-Jun 2008;14(3):564-70.
150. Emergence of carbapenem resistant gram-negative rods and vancomycin resistant Gram-positive organisms in bacteremic isolates of febrile neutropenic patients; A descriptive study. Irfan S, Idrees F, Mehraj V, Habib F, Adil S and **Hasan R**. *BMC Infect Dis*. 2008 Jun 9; 8:80. DOI: [10.1186/1471-2334-8-80](https://doi.org/10.1186/1471-2334-8-80).
151. Co-circulations of two genotypes of dengue virus in 2006 out-break of Dengue Hemorrhagic Fever in Karachi Pakistan. Khan E, **Hasan R**, Mehraj V, Nasir A, Siddiqui J and Hewson R. *Journal of Clinical Virology*. 2008; 43(2); 176-179. DOI: [10.1016/j.jcv.2008.06.003](https://doi.org/10.1016/j.jcv.2008.06.003).
152. Antibiotic resistance among *Salmonella enterica* Serovars Typhi and Paratyphi A in Pakistan (2001- 2006). **Hasan R**, Zafar A, Abbas Z, Mahraj V, Malik F and Zaidi A. *Journal of Infection in Developing Countries*. 2008 Aug 30;2(4):289-94. DOI: [10.3855/jidc.224](https://doi.org/10.3855/jidc.224).
153. TB in Pakistan (Guest Editorial). **Hasan R**. *Infectious Diseases Journal of Pakistan*. 2008 Jan- Mar; 17(1):2.
154. An assessment of Mantoux test in the Diagnosis of Tuberculosis in a BCG-Vaccinated, Tuberculosis Endemic Area. Jamil B, Qamruddin S, Sarwari A and **Hasan R**. *Infectious Diseases Journal of Pakistan*. 2008; Jan-Mar; 17(1):18-22. https://ecommons.aku.edu/pakistan_fhs_mc_med_med/494.
155. Rapid detection of *Mycobacterium tuberculosis* in Sputum Samples by Microscopic Observation Methods. Irfan S, **Hasan R**, Kanji A, Hassan Q and Azam I. *Infectious Diseases Journal of Pakistan*. 2008; Jan-Mar; 17(1):10-13. https://d1wqtxts1xzle7.cloudfront.net/4734269/page10-13-libre.pdf?1390838071=&response-content-disposition=inline%3B+filename%3DRapid_Detection_of_Mycobacterium_Tubercu.pdf&Expires=1655889224&Signature=U394407ZJqLuK9FFpPhLRx18fjx58m4w9ZyGI4CbKZELvgJ4OqcRMhdzzCPjFUJveL1HEnjKuKY~57jowPwRADL~wUiMED0wc7BCWgZrWkavw8X3HsEGRJNn8rexOt1opbVnCCbiC0n1TCeUNwI3VckSbEu9G4-

[ShxyoekLJcLJ-yO0qof~~42vjNPj5HIuzqIbw4W31WPLZOkZLr7dtDCJPbIDzf0UenLWRZ723J438oKXOHWFbcjsghHP4VLUjBYvzsetrYKTf~c2JTHNQdGtJVONux0IF-zJVcUYZolMYOKSDIHExCg-I11X11yg6aO6~c4oCJ7yjC8L1tVsAA_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA.](https://pubmed.ncbi.nlm.nih.gov/17234380/)

156. Molecular Epidemiology of Mycobacterium tuberculosis. Ali A, Hasan Z and **Hasan R**. Infectious Diseases Journal of Pakistan. 2008; Apr-Jun; 17(2):61-65.
157. Primary Drug Resistance to Antituberculous Drugs in NWFP Pakistan. Javaid A, Ghafoor A, Rab A, Basit A, Ullah Z, Ali S, Zafar A and Hasan R. J. Pakistan Medical Association. 2008 Aug;58(8):437-40.
158. Primary Drug Resistance to Anti-tuberculous Drugs in Karachi. Javaid A, Rizvi N, Ansari M, Sadiq A, Burki IS, Rehman NU, **Hasan R** and Zafar A. J Coll Physicians Surg Pak. 2008 Nov; 18(11):699-702.
159. Genotyping and Drug resistance patterns of M.tuberculosis strains in Pakistan. Tanveer M, Hasan Z, Siddiqui AR, Ali A, Kanji A, Ghebremicheal S and **Hasan R**. BMC Infect Dis. 2008 Dec 24; 8(1):171. DOI: [10.1186/1471-2334-8-171](https://doi.org/10.1186/1471-2334-8-171).
160. A study of typhoid fever in five Asian countries: disease burden and implications for controls. Ochiai RL, Acosta CJ, Danovaro-Holliday MC, Baiqing D, Bhattacharya SK, Agtini MD, Bhutta ZA, Canh do G, Ali M, Shin S, Wain J, Page AL, Albert MJ, Farrar J, Abu-Elyazeed R, Pang T, Galindo CM, von Seidlein L, Clemens JD; **Rumina Hasan**, Domi Typhoid Study Group. Bull World Health Organ. 2008 Apr; 86(4):260-8. DOI: [10.2471/blt.06.039818](https://doi.org/10.2471/blt.06.039818)

YEAR 2007

161. MODS assay for the diagnosis of TB. (Letter to the Editor) **Hasan R** and Irfan S. N Engl J Med. 2007 Jan 11;356 (2):188.
162. Dengue virus serotype 3, Karachi, Pakistan. Jamil B, **Hasan R**, Zafar A, Bewley K, Chamberlain J, Mioulet V, Rowlands M and Hewson R. Emerging Infectious Diseases. 2007 Jan;13(1):182-3. DOI: [10.3201/eid1301.060819](https://doi.org/10.3201/eid1301.060819).
163. Nosocomial buffalopoxvirus infection, Karachi, Pakistan. Zafar A, Swanepoel R, Hewson R, Nizam M, Ahmed A, Husain A, Grobbelaar A, Bewley K, Mioulet V, Dowsett B, Easterbrook L and **Hasan R**. Emerging Infectious Diseases. 2007; Jun; 13(6):902-4. DOI: [10.3201/eid1306.061068](https://doi.org/10.3201/eid1306.061068).
164. Multidrug-resistant Salmonella enterica serovar Paratyphi A harbour IncHI1 plasmids

- similar to those found in serovar Typhi. Holt KE, Thomson NR, Wain J, Phan MD, Nair S, **Hasan R**, Bhutta ZA, Quail MA, Norbertczak H, Walker D, Dougan G and Parkhill J. *J. Bacteriol.* 2007 Jun; 189(11):4257-64. DOI: [10.1128/JB.00232-07](https://doi.org/10.1128/JB.00232-07).
165. Hyperendemic pulmonary tuberculosis in peri-urban areas of Karachi, Pakistan. Akhtar S, White F, **Hasan R**, Rozi S, Younus M, Ahmed F, Husain S and Khan BS. *Biomedical Central (BMC) Public Health.* 2007; May 3; 7: 70. DOI: [10.1186/1471-2458-7-70](https://doi.org/10.1186/1471-2458-7-70).
166. Dengue out-break Karachi 2006: Experience at a tertiary care center. Khan E, Siddiqui J, Shakoor S, Mehraj V, Jamil B and **Hasan R**. *Trans R Soc Trop Med Hyg.* 2007 Nov; 101(11):1114-9. DOI: [10.1016/j.trstmh.2007.06.016](https://doi.org/10.1016/j.trstmh.2007.06.016).
167. Characterization of Mycobacterium tuberculosis Central Asian Strain1 (CAS1) using Mycobacterial Interspersed Repetitive Unit (MIRU-VNTR). Ali A, Hasan Z, Tanveer M, Siddiqui AR, Ghebremichael S, Kallenius G and **Hasan R**. *BMC Microbiol.* 2007 Aug 9; 7: 76. DOI: [10.1186/1471-2180-7-76](https://doi.org/10.1186/1471-2180-7-76).

YEAR 2006

168. Incidence of acute respiratory infections in children 2 month to 5 years of age in periurban communities in Karachi, Pakistan. Nizami SQ, Bhutta ZA and **Hasan R**. *J. Pakistan Medical Association.* 2006 Apr;56(4):163-7.
169. Assessment of primary resistance in multi-drug resistance (MDR) tuberculosis patient. Irfan S, Hassan Q and **Hasan R**. *J Pak Med Assoc.* 2006 Sep; 56(9):397-400.
170. Emergence of quinolone resistant Neisseria gonorrhoea in Pakistan. Jabeen K, Khan E and **Hasan R**. *J. Sexually Trans Diseases and Aids* 2006; 17(1): 30-33. DOI: [10.1258/095646206775220469](https://doi.org/10.1258/095646206775220469).
171. Typhoid fever in children: some epidemiological considerations from Karachi, Pakistan. Siddiqui FJ, Rabbani F, **Hasan R**, Nizami SQ and Bhutta ZA. *Int. J. Infect. Dis.* 2006 May; 10(3): 215-22. DOI: [10.1016/j.ijid.2005.03.010](https://doi.org/10.1016/j.ijid.2005.03.010).
172. Spoligotyping of Mycobacterium tuberculosis isolates in Pakistan reveals MDR associated Beijing strains and the predominance of a Central Asian type strain. Hasan Z, Tanveer M, Kanji A, Hasan Q, Ghebremichael S and **Hasan R**. *J. Clinical Microbiology.* May 2006; 44(5): 1763-1768. DOI: [10.1128/JCM.44.5.1763-1768.2006](https://doi.org/10.1128/JCM.44.5.1763-1768.2006).
173. Enhanced disease surveillance through private health care sector cooperation in Karachi, Pakistan: experience from a vaccine trial. Khan MI, Sahito SM, Khan MJ, Wassan SM, Shaikh AW, Maheshwari AK, Acosta CJ, Galindo CM, Ochiai RL, Rasool S, Peerwani S, Puri MK, Ali M, Zafar A, **Hassan R**, von Seidlein L, Clemens JD, Nizami SQ and Bhutta ZA. *Bull World Health Organ.* 2006 Jan; 84(1):72-7. DOI: [10.2471/blt.05.023630](https://doi.org/10.2471/blt.05.023630).

174. Evaluation of microcolony detection method and phage assay for rapid detection of Mycobacterium tuberculosis complex in sputum sample. Irfan S, Hasan R, Kanji A, Hassan Q, Azam I. Southeast Asian J Trop Med and Public Health. 2006; 37(6): 1187-95

YEAR 2005

175. Vi antigen expression in Salmonella enterica serovar Typhi clinical isolates from Pakistan. Wain J, House D, Zafar A, Baker S, Nair S, Kidgell C, Bhutta Z, Dougan G and **Hasan R**. J. Clin. Microbiology 2005; 43(3): 1158-65.
DOI: [10.1128/JCM.43.3.1158-1165.2005](https://doi.org/10.1128/JCM.43.3.1158-1165.2005).
176. Role of chest X'ray in diagnosis of lower respiratory tract infections in children less than 5 years of age in community. Nizami SQ, Bhutta Z, **Hasan R**, and Husen YA. Pakistan J. Medical Science. 2005; 21(4);417-421.
177. Frequency and sensitivity pattern of Extended Spectrum beta Lactamase producing isolates in a tertiary care hospital laboratory of Pakistan. Jabeen K, Zafar A and **Hasan R**. J. Pakistan Medical Association. 2005; 55(10): 436-439.
178. Naladixic acid screening test in detection of decreased fluoroquinolone susceptibility in Salmonella typhi isolated from blood. Zafar A, Ibrahim NG, Ahsan T, Abbas Z, Zaidi A and **Hasan R**. J. Coll Physicians Surg Pak. 2005 Jul; 15(7); 413-417.
179. Crimean-Congo Haemorrhagic fever: Experience at a tertiary care hospital in Karachi, Pakistan. Jamil B, **Hasan R**, Sarwari AR, Burton J, Hewson R and Clegg C. Transactions Royal Society of Tropical Medicine and Hygiene. 2005 Aug; 99, 577-584.
DOI: [10.1016/j.trstmh.2005.03.002](https://doi.org/10.1016/j.trstmh.2005.03.002).
180. Typhoid and paratyphoid fever. (Comment). **R. Hasan**, Cooke FJ, Nair S, Harish BN and Wain J. Lancet 2005; 366(9497): 1603-1604. DOI: [10.1016/S0140-6736\(05\)67654-4](https://doi.org/10.1016/S0140-6736(05)67654-4).

YEAR 2004

181. Penicillin Resistant Streptococcus pneumoniae at a tertiary care centre in Pakistan. Yakoob MY, Hassan Q and **Hasan R**. Tropical Doctor. 2004 Apr; 34(2): 121-2.
DOI: [10.1177/004947550403400230](https://doi.org/10.1177/004947550403400230).
182. Evaluation of frequency of isolation and trends in antibiotic resistance among Campylobacter isolates over 11-year period. Ibrahim NG, Zafar A and **Hasan R**. J Pakistan Medical Association. J. Pakistan Medical Association. 2004 Jun; 54(6): 291-294.
183. Impact of antibiotic usage on resistance in micro-organisms; Urinary tract infection with

E. coli as a case in point. Sabir N, Khan E, Sheikh L and **Hasan R**. J Pakistan Medical Association. 2004 Sep; 54(9): 472-5.

184. Crimean - Congo haemorrhagic fever virus: Sequence analysis of the Small RNA segment from a collection of viruses worldwide. Hewson R, Chamberlain J, Mioulet V, Lloyd G, Jamil B, **Hasan R**, Gmyl A, Gmyl L, Smirnova SE, Lukashev A, Karganova G and Clegg C. Virus Research. 2004 Jun; 15.102(2): 185.
DOI: [10.1016/j.virusres.2003.12.035](https://doi.org/10.1016/j.virusres.2003.12.035).
185. PCR identification and automated ribotyping of Pseudomonas aeruginosa clinical isolates from intensive care patients. Sarwari A, **Hasan R**, Lim CB, Ng Y, Ng C and Zaman S. Scandanavian J. Infectious Diseases. 2004; 36(5): 324-9.
DOI: [10.1080/00365540410020109](https://doi.org/10.1080/00365540410020109).
186. Evidence of segment reassortment in Congo Crimean Haemorrhagic Fever Virus. Roger Hewson, Anatoliy Gmyl, Larissa Gmyl, Svetlana E. Hewson R, Gmyl A, Gmyl L, Smirnova SE, Karganova G, Jamil B, **Hasan R**, Chamberlain J and Clegg C. J. General Virology. 2004 Oct; 85: 3059-3070. DOI: [10.1099/vir.0.80121-0](https://doi.org/10.1099/vir.0.80121-0).

YEAR 2003

187. Sever Acute Respiratory Syndrome- A Review (invited review). Khan E, **Hasan R** and Afia Zafar. Infectious Diseases Journal of Pakistan. 2003; 12(2): 47-48.
188. Caesarian section wound infection: Pathogen or contaminants? (A case report). Jamil B, Ahsan ST, Zafar H and **Hasan R**. Infectious Diseases Journal of Pakistan. 2003; 12(2): 57-58.
189. Re-emergence of Vibrio cholere 0139 in Pakistan. Jabeen K and **Hasan R**. J. Pakistan Medical Association. 2003 Aug;53(8):335-8.
190. Comparison of combined disc and double disc method for the detection of ESBL. Jabeen K, Zafar A and **Hasan R**. J Pakistan Medical Association. 2003 Nov;53(11):534-6.
191. Typhoid Fever (Letter to the editor). Zaidi AK, **Hasan R** and Bhutta ZA. New England Journal of Medicine. 2003 Mar 20;348(12):1182-4; author reply 1182-4.
192. Implications of use of contaminated drugs: a developing world scenario. (Letter to the editor). Zafar A, **Hasan R** and Sabir N. Lancet. 2003 Jul 12;362(9378):169-70.
DOI: [10.1016/S0140-6736\(03\)13873-1](https://doi.org/10.1016/S0140-6736(03)13873-1).

YEAR 2002

193. Nosocomial and ventilator associated pneumonias. **Hasan R** and Babar SI. Developing country perspective. *Current Opinions in Pulmonary Medicine*. 2002 May;8(3):188-94. DOI: [10.1097/00063198-200205000-00007](https://doi.org/10.1097/00063198-200205000-00007).
194. Diagnosis of Typhoid Fever by Dot Enzyme Immunoassay in an Endemic Region. Khan E, Azam I, Ahmed S and Hassan R. *J. Pakistan Medical Association*. 2002 Sep; 52(9): 415-417.
195. Emergence of Vancomycin-Resistant *Enterococcus faecium* at a Tertiary Care Hospital in Karachi, Pakistan. Khan E, Sarwari A, **Hasan R**, Ghori S, Babar I, O'Brien F and Grubb W. *J. Hospital Infection*. 2002 Dec; 52(4); 292-296. DOI: [10.1053/jhin.2002.1315](https://doi.org/10.1053/jhin.2002.1315).

YEAR 2001

196. A low-cost Intervention for Cleaner Drinking Water in Karachi, Pakistan. Luby S, Agboatwalla M, Raza A, Sobel J, Mintz E, Baier K, Rahbar M, Qureshi S, **Hassan R**, Ghouri F, Hoekstra RM and Gangarosa E. *International Journal of Infectious Diseases*. 2001; 5 (3); 144-150. DOI: [10.1016/s1201-9712\(01\)90089-x](https://doi.org/10.1016/s1201-9712(01)90089-x).
197. Microbiological effectiveness of hand washing with soap in an urban squatter settlement, Karachi, Pakistan. Luby SP, Agboatwalla M, Raza A, Sobel J, Mintz ED, Baier K, Hoekstra RM, Rahbar MH and **Hassan R**, Qureshi SM and Gangarosa EJ. *Epidemiol Infect*. 2001 Oct; 127; 237-244. DOI: [10.1017/s0950268801005829](https://doi.org/10.1017/s0950268801005829).
198. Quinolone resistance in neutropenic patients: the effect of prescribing policy in the UK and Pakistan. Zaidi Y, Hastings M, Murray J, **Hasan R**, Khurshid M and Mahendra P. *Clin Lab. Haem*. 2001; 23; 39-42. DOI: [10.1046/j.1365-2257.2001.00347.x](https://doi.org/10.1046/j.1365-2257.2001.00347.x).

YEAR 1997

199. Immune response profile in patients with active tuberculosis in a BCG vaccinated area. Hussain R, Toossi Z, Hasan R, Jamil B, Dawood G, Ellner JJ. *Asian J. Trop. Med. Pub. Hlth*. 1997 Dec; 28: 764-773.
200. Diagnosis of *Chlamydia trachomatis* infections. **Hasan R**. *Infectious Diseases Journal of Pakistan* 1997.

YEAR 1999

201. Acute gastroenteritis caused by E. coli O157:H7 in Pakistani Children (Research Letter). P Mufti, ZA Bhutta and **R Hasan**, Tropical Pediatrics. 1999 August; 45(4): 253-4. <https://doi.org/10.1093/tropej/45.4.253>.

YEAR 1996

202. Pulmonary tuberculosis in a BCG vaccinated: relationship of disease severity with immunological and haematological parameters and drug resistance patterns. Hussain R, **Hasan R**, Khurshid M, Sturm AW, Ellner JJ and Dawood G. Asian J. Trop. Med. Pub. Hlth. 1996 Jun; 27(2) 257-262.
203. Invasive retroperitoneal infection due to Basidiobolus vanarum in an 8-year-old boy. A case report and review of literature. Nazir Z, Hasan R, Pervaiz S, Alam M and Moazam F. Annals of Tropical Paediatrics. 1997 Jun;17(2):161-4.
DOI: [10.1080/02724936.1997.11747880](https://doi.org/10.1080/02724936.1997.11747880).

YEAR 1993

204. Antigen coated latex particles as a model system for probing monocyte responses in leprosy. **Hasan R**, Dockrell HM, Jamil S, Chiang TJ and Hussain R. Infection and Immunity. 1993 Sep;61(9):3724-9. DOI: [10.1128/iai.61.9.3724-3729.1993](https://doi.org/10.1128/iai.61.9.3724-3729.1993).

YEAR 1992

205. Specificity of lymphocytotoxic Auto antibodies (LCABs) found in the serum of leprosy patients: Class I MHC Antigens. Rasheed FN, Locniskar M, McCloskey DJ, **Hasan R**, Chiang TJ, Rose P, de Soldenhoff R, Festenstein H and McAdam KP. Lepr Rev. 1991 Mar;62(1):13-20. DOI: [10.5935/0305-7518.19910002](https://doi.org/10.5935/0305-7518.19910002).
206. Detection of high titers of T. gondii antibodies in sera of patients with leprosy in Pakistan. Hussain R, Jamil S, Dockrell HM, Chiang TJ, Hasan R. Roy. Soc. Trop. Med. Hyg. May-Jun 1992;86(3):259-62. DOI: [10.1016/0035-9203\(92\)90302-s](https://doi.org/10.1016/0035-9203(92)90302-s).

YEAR 1990

207. Quantitations of IgM antibodies to the M. leprae synthetic disaccharide can predict early bacterial multiplication in leprosy. Hussain R, Jamil S, Kifayat A, Firdausi F, Dockrell HM, Lucas S and **Hasan R**. Int. J. Lep. 1990 Sep; 58(3): 491-502.

208. The diagnosis of tuberculosis. (Review). **Hasan R**, Hussain R and Sturm AW. Pakistan J. Surg. 1990; 6: 86-88.

YEAR 1989

209. T cell recognition of the 18kD antigen Mycobacterium leprae. Dockrell HM, Stoker NG, Lee SP, Jackson M, Grant KA, Jouy NF, Lucas SB, **Hasan R**, Hussain R and McAdam KP. Immun. 1989 Jul; 57(7): 1979-1983. DOI: [10.1128/iai.57.7.1979-1983.1989](https://doi.org/10.1128/iai.57.7.1979-1983.1989).
210. Serum lymphocytotoxic activity in leprosy. Rasheed FN, Lochniskar M, McCloskey DJ, **Hasan R**, Chiang TJ, Rose P, de Soldenhoff R, Festenstein H and McAdam KP. Clin. Exp. Immunol. 1989 Jun;76(3):391-7. PMID: [PMC1541899](https://pubmed.ncbi.nlm.nih.gov/1541899/).
211. Quantitative Antibody Elisa for Leprosy. **Hasan R**, Dockrell HM, Chiang T and Hussain R. Int. J. Lep. 1989; 57 (4): 766-776.

BOOK CHAPTERS:

1. Epidemiological, ecological and public health effects of antibiotics and AMR/ARGs. Sadia Shakoor, Zahra Hasan, **R Hasan**. In Antibiotics and Antimicrobial Resistance Genes: Environmental Occurrence and Treatment Technologies. Pages 255-269. Ist Edition, Springer International Publishing. 2019.
2. Salmonella, Enteric Fevers, and Salmonellosis **Hasan, R.**, Nordin, A.C., Shakoor, S., Keenum, I. and Vinneras, B. 2019.. In: J.B. Rose and B. Jiménez-Cisneros, (eds) Global Water Pathogen Project. <http://www.waterpathogens.org> (A. Pruden, N. Ashbolt and J. Miller (eds) Part 3 Baceteria) <http://www.waterpathogens.org/book/salmonella-enteric-fevers-salmonellosis> Michigan State University, E. Lansing, MI, UNESCO.
3. Nosocomial and healthcare-associated NTM infections and their control. S Shakoor, M Owais, **R Hasan**, S Irfan. In: Non tuberculosis mycobacterium (NTM), 1st edition, Elsevier 2019. (<https://www.elsevier.com/books/nontuberculous-mycobacteria-ntm/velayati/978-0-12-814692-7>).
4. Association between Malaria, Immunosuppression, and relatively high risk for diarrhoeal attacks. Nalin D, Hasan, R, Haque, S, and Boltonsky, H. New prospects for Treatment and Prevention, Ed. by Holme, T., Holmegren, J., Merson, M.H., and Mollby R. Elsevier/North Holland Biomedical Press, (1981).
5. Susceptibility testing of nontuberculous mycobacteria. I Ahmed, **R Hasan**, S Shakoor. In:

Non tuberculosis mycobacterium (NTM), 1st edition, Elsevier 2019.

(<https://www.elsevier.com/books/nontuberculous-mycobacteria-ntm/velayati/978-0-12-814692-7>).

6. Genetic diversity of dengue viruses and associated clinical severity during periodic epidemics in South East Asia. Erum Khan, **Rumina Hasan**, Jaishri Mehraj and Sajid Mahmood. In "Tropical Medicine", ISBN 978-953-307-877-9. EDITOR: Alfonso J. Rodriguez-Morales 2012 <http://www.intechopen.com/articles/show/title/genetic-diversity-of-dengue-viruses-and-associated-clinical-severity-during-periodic-epidemics-in-so>

CONTRIBUTIONS TO REPORTS, GUIDELINES AND POLICY DOCUMENTS:

1. Technical Report on critical concentrations for drug susceptibility testing of isoniazid and the rifamycins (rifampicin, rifabutin and rifapentine). WHO 2021 ISBN 978-92-4-001728-3. <https://apps.who.int/iris/bitstream/handle/10665/339275/9789240017283-eng.pdf?sequence=1&isAllowed=y>.
2. Meeting report of the WHO expert consultation on the definition of extensively drug-resistant tuberculosis. 22 January 2021 <https://www.who.int/publications/i/item/meeting-report-of-the-who-expert-consultation-on-the-definition-of-extensively-drug-resistant-tuberculosis>. <https://www.who.int/news/item/27-01-2021-who-announces-updated-definitions-of-extensively-drug-resistant-tuberculosis>.
3. Corticosteroids for COVID-19. Living Guidance (2 September 2020). WHO REFERENCE NUMBER: WHO/2019-nCoV/Corticosteroids/2020.1 <https://www.who.int/publications/i/item/WHO-2019-nCoV-Corticosteroids-2020.1>.
4. Clinical management of COVID-19 Interim Guidance (27 May, 2020). WHO REFERENCE NUMBER: WHO/2019-nCoV/clinical/2020.5 <https://www.who.int/publications/i/item/clinical-management-of-covid-19>.
5. WHO Consolidated Guidelines on Tuberculosis Module 3: Diagnosis. Rapid Diagnostics for Tuberculosis Detection. 2020; ISBN: 9789240007307. <https://www.who.int/publications/i/item/who-consolidated-guidelines-on-tuberculosis-module-3-diagnosis--rapid-diagnostics-for-tuberculosis-detection>.
6. Rapid Communication: Molecular assays as initial tests for the diagnosis of tuberculosis and rifampicin resistance. January 2020. <https://www.who.int/publications/i/item/9789240000339>
7. Lateral flow urine lipoarabinomannan assay (LF-LAM) for the diagnosis of active tuberculosis in people living with HIV Policy update 2019. WHO/CDS/TB/2019.16.

- [\(https://www.who.int/tb/publications/2019/LAMPolicyUpdate2019/en/\)](https://www.who.int/tb/publications/2019/LAMPolicyUpdate2019/en/).
8. Global Antimicrobial Resistance Surveillance System (GLASS). WHO/WSI/AMR/2018.4. The detection and reporting of colistin resistance. <https://apps.who.int/iris/bitstream/handle/10665/277175/WHO-WSI-AMR-2018.4-eng.pdf>.
 9. Global Antimicrobial Resistance Surveillance System (GLASS). Early implementation 2017-2018. <https://www.who.int/glass/resources/publications/early-implementation-report-2017-2018/en/>.
 10. Situation Analysis Report on Antimicrobial Resistance in Pakistan. Findings and Recommendations for Antibiotic Use and Resistance. 2018 <https://cddep.org/publications/garp-pakistan-situation-analysis/>.
 11. Technical manual for drug susceptibility testing of medicines used in the treatment of tuberculosis. 2018 WHO. WHO/CDS/TB/2018.24.
 12. The Use of next-generation sequencing technologies for the detection of mutations associated with drug resistance in Mycobacterium tuberculosis complex: Technical Guide. 2018 WHO/ FIND. WHO/CDS/TB/2018.19.
 13. National Laboratory Policy, Pakistan. December 2017. NIH Publication No. PHLD/NLWG-001-2018.
 14. National Laboratory Biosafety and Biosecurity Policy, Pakistan. December 2017. NIH Publication No. PHLD/NLWG-002-2018.
 15. National Strategic Framework for Containment of Antimicrobial Resistance (AMR). Ministry of National Health Services, Regulation and Coordination. Govt of Pakistan. 2017.
 16. **10.** GLI Guide to TB Specimen Referral Systems and Integrated Networks October 2017. http://www.stoptb.org/wg/gli/assets/documents/GLI_Guide_specimens_web_ready.pdf.
 17. GLI model TB diagnostic algorithms. March 2017. http://www.stoptb.org/wg/gli/assets/documents/GLI_algorithms.pdf
 18. The use of molecular line probe assays for the detection of resistance to isoniazid and rifampicin. Policy Update WHO/HTM/TB/2016.12 <https://apps.who.int/iris/handle/10665/250586>.
 19. Framework of indicators and targets for laboratory strengthening under the End TB Strategy. WHO/HTM/TB/2016.18.
 20. The use of loop-mediated isothermal amplification (TB-LAMP) for the diagnosis of pulmonary tuberculosis: policy guidance. WHO/HTM/TB/2016.11 [\(https://www.who.int/tb/publications/lamp-diagnosis-molecular/en/\)](https://www.who.int/tb/publications/lamp-diagnosis-molecular/en/).
 21. National antimicrobial resistance surveillance systems and participation in the Global

- Antimicrobial Resistance Surveillance System (GLASS). A guide to planning, implementation, and monitoring and evaluation. [WHO/DGO/AMR/2016.4](#)
22. Diagnostic stewardship. A guide to implementation in antimicrobial resistance surveillance sites. [WHO/DGO/AMR/2016.3](#).
 23. Guide for providing technical support to TB laboratories in low- and middle-income countries. A publication of the Global Laboratory Initiative (GLI), a working group of the Stop TB Partnership. 2015 <http://www.stoptb.org/wg/GLI/documents.asp>.
 24. The Use of Molecular Line Probe Assay for the Detection of Resistance to Second-Line Anti- Tuberculosis Drugs. WHO 2013.
 25. The Use of a Commercial Loop-Mediated Isothermal Amplification Assay (TB-Lamp) for the Detection of Tuberculosis. WHO 2012.
 26. Tuberculosis Laboratory Biosafety Manual. World Health Organisation 2012.
 27. National Guidelines for TB Infection Control. National TB Control Program, Ministry of Health, Pakistan. 2010.
 28. The Global Plan to STOP TB 2011-2015. STOP TB Partnership, WHO 2010. ISBN 978 92 4 1500340 National Guidelines for the management of Drug Resistant Tuberculosis. National TB Control Program, Ministry of Health.
 29. Global Antimicrobial Resistance and Use Surveillance System (GLASS) Report: 2021 <https://www.who.int/publications/i/item/9789240027336>.
 30. WHO Operational handbook on tuberculosis Module 3: Diagnostics. Rapid Diagnostics for tuberculosis detection. 2021 Update <https://www.who.int/publications/i/item/9789240029415>.
 31. Target product profile for next generation drug-susceptibility testing at peripheral centres. 2021 <https://apps.who.int/iris/rest/bitstreams/1361325/retrieve>.
 32. Rapid communication: TB antigen-based skin tests for the diagnosis of TB infection. 2022 <https://apps.who.int/iris/bitstream/handle/10665/352802/WHO-UCN-TB-2022.1-eng.pdf>.
 33. Optimized broth microdilution plate methodology for drug susceptibility testing of Mycobacterium tuberculosis complex. 2022. <https://apps.who.int/iris/bitstream/handle/10665/353066/9789240047419-eng.pdf>.
 34. Optimized broth microdilution plate methodology for drug susceptibility testing of Mycobacterium tuberculosis complex. 2022. <https://apps.who.int/iris/bitstream/handle/10665/353066/9789240047419-eng.pdf>