



XXVII CONGRESO NACIONAL SEIMC. Zaragoza 30 mayo-1 junio 2024

REVISIÓN DE LA LITERATURA: MICROBIOLOGÍA

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**Servicio de Microbiología Clínica y Enfermedades Infecciosas
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1.- Guide to utilization of the Microbiology laboratory for diagnosis of infectious diseases: 2024 Update by the Infectious Diseases Society of America (IDSA) and the American Society for Microbiology (ASM).

J Michael Miller, Matthew J Binnicker, Sheldon Campbell, Karen C Carroll, Kimberle C Chapin, Mark D Gonzalez, et al. *Clin Infect Dis*. 2024 Mar 5:ciae104. doi: 10.1093/cid/ciae104. Online ahead of print.

2.- Blood cultures with one venipuncture instead of two: a prospective clinical comparative single-center study including patients in the ICU, haematology, and infectious diseases departments.

Elina Andersson Norlén, Micael Widerström, Anna Lindam, Johanna Olsson, Ulf Ryding. *Infect Dis (Lond)*. 2023 Sep;55(9):591-598. doi: 10.1080/23744235.2023.2223281.

3.- The use of machine learning for image analysis artificial intelligence in clinical microbiology.

Bethany L Burns, Daniel D Rhoads, Anisha Misra. *J Clin Microbiol*. 2023;61(9):e0233621. doi: 10.1128/jcm.02336-21.

4.- Performance evaluation of machine-assisted interpretation of Gram stains from positive blood cultures.

Christian Walter, Christoph Weissert, Eve Gizewski, Irene Burckhardt, Heiko Mannsperger, Siegfried Hänselmann, et al. *J Clin Microbiol*. 2024;62(4):e0087623. doi: 10.1128/jcm.00876-23.

5.- Culture-independent identification of bloodstream infections from whole blood: prospective evaluation in specimens of known infection status.

Vidya Iyer, Daniel Castro, Bipin Malla, Britta Panda, Arthur R Rabson, Gary Horowitz, Nicholas Heger, Kamlesh Gupta, Alon Singer, Errol R Norwitz. J Clin Microbiol. 2024;62(3):e0149823. doi: 10.1128/jcm.01498-23.

6.- Diagnostic performance and clinical impacts of metagenomic sequencing after allogeneic hematopoietic stem cell transplantation.

Chun-Hui Xu, Xin Chen, Guo-Qing Zhu, Hui-Ming Yi, Shu-Lian Chen, Teng Liu, et al. J Microbiol Immunol Infect. 2024;57:11-19. doi: 10.1016/j.jmii.2023.11.002.

7.- Development and validation of a next-generation sequencing assay with open-access analysis software for detecting resistance-associated mutations in CMV.

Melanie A Mallory, Weston C Hymas, Keith E Simmon, Michael T Pyne, Jeffery B Stevenson, Adam P Barker, David R Hillyard, Kimberly E Hanson. J Clin Microbiol. 2023;61(12):e0082923. doi: 10.1128/jcm.00829-23.

8.- State-of-the-art detection of *Mycobacterium tuberculosis* in blood during tuberculosis infection using phage technology.

Catherine ED Rees, Benjamin MC Swift, Pranabashis Haldar. Int J Infect Dis. 2024; 141S:106991. doi: 10.1016/j.ijid.2024.106991.

9.- Clinical impact of polymerase chain reaction-based *Aspergillus* and azole resistance detection in invasive aspergillosis: a prospective multicenter study.

Sammy Huygens, Albert Dunbar, Jochem B Buil, Corné H W Klaassen, Paul E Verweij, Karin van Dijk, et al. Clin Infect Dis. 2023;77:38-45. doi: 10.1093/cid/ciad141.

10.- Dual CRISPR/Cas13a cascade strand displacement-triggered transcription for point-of-care detection of *Plasmodium* in asymptomatic malaria

Hongru Pian, Hui Wang, Honghong Wang, Zhengping Li. Anal Chem. 2024 May 2. doi: 10.1021/acs.analchem.4c00230. Online ahead of print.

11.- Evaluation of Fourier transform-infrared spectroscopy (FT-IR) as a control measure for nosocomial outbreak investigations.

Gabriela Uribe, Stephen J Salipante, Lauren Curtis, Joshua A Lieberman, Kyoko Kurosawa, Brad T Cookson, Daniel Hoogestraat, Mary K Stewart, Tessa Olmstead, Lori Bourassa. *J Clin Microbiol.* 2023;61(10):e0034723. doi: 10.1128/jcm.00347-23.

12.- Performance evaluation of the UMIC® Cefiderocol to determine MIC in Gram-negative bacteria.

Laurent Dortet, Claudia Niccolai, Niels Pfennigwerth, Stefanie Frisch, Camille Gonzalez, Alberto Antonelli, et al. *J Antimicrob Chemother.* 2023;78(7):1672-1676. doi: 10.1093/jac/dkad149.

13.- Multicenter evaluation of an MIC-based aztreonam and ceftazidime-avibactam broth disk elution test.

Harley Harris, Lili Tao, Emily B Jacobs, Yehudit Bergman, Ayomikun Adebayo, Tsigedera Tekle, et al. *J Clin Microbiol.* 2023;61(5):e0164722. doi: 10.1128/jcm.01647-22.

14.- Structural basis of metallo- β -lactamase resistance to taniborbactam

Salvador I Drusin, Christophe Le Terrier, Laurent Poirel, Robert A Bonomo, Alejandro J Vila, Diego M Moreno. *Antimicrob Agents Chemother.* 2024;68(2):e0116823. doi: 10.1128/aac.01168-23.

15.- Emergence of hypervirulent *Klebsiella pneumoniae* ST23 carrying carbapenemase genes in EU/EEA countries, first update. 14 February 2024.

European Centre for Disease Prevention and Control. ECDC: Stockholm; 2024. ISBN 978-92-9498-691-7 doi: 10.2900/993023.

16.- Highly pathogenic avian influenza A(H5N1) virus infection in a dairy farm worker.

Timothy M Uyeki, Scott Milton, Cherissa Abdul Hamid, Cynthia Reinoso Webb, Steven M Presley, Varun Shetty, et al. *N Engl J Med.* 2024. doi: 10.1056/NEJMc2405371.
Online ahead of print.

17.- Viral epidemic preparedness: a perspective from five clinical microbiology laboratories in Europe.

Miguel Julián Martínez, Matthew Cotten, My V.T. Phan, Karsten Becker,

Mateu Espasa, Truls M. Leegaard, et al. *Clin Microbiol Infect.* 2024;30:582-585. doi: 10.1016/j.cmi.2023.04.024.

18.- If you're not confused, you're not paying attention: *Ochrobactrum* is not *Brucella*. Edgardo Moreno, Earl A Middlebrook, Pamela Altamirano-Silva, Sascha Al Dahouk, George F Araj, Vilma Arce-Gorvel, et al. *J Clin Microbiol.* 2023;61(8):e0043823. doi: 10.1128/jcm.00438-23.