

Sepsis

Current Awareness Bulletin

December 2025

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- **Bitesize searching databases for evidence: a quick guide to help you develop your literature searching skills**
45 minutes. Learn how to transform a question into a search strategy, and how to find the best evidence in a database.
Next sessions: 22nd January 2026 @ 2pm and 13th February 2026 @ 3pm
- **Simple and painless evidence into practice (BMJ Best Practice and the LKS Hub)**
30 minutes. Learn about quick and hassle-free ways to seamlessly incorporate evidence into your daily work.
Next sessions: 16th January 2026 @ 10am and 2nd February 2026 @ 11am
- **Quickfire health literacy: communicating with patients more effectively**
30 minutes. Learn about the communication barriers patients may encounter, and ways to ensure they get the most from their care.
Next sessions: 7th January 2026 @ 2pm and 19th February 2026 @ 3pm

Book a session today at <https://forms.office.com/e/HyiSXfDaYV> (these sessions will be held on a monthly basis)

1. Pathogen detection and analysis in patients with sepsis complicated with new-onset atrial fibrillation: a retrospective observational study.

Authors: Yang A.L.;Li L.;Zhang Z.H.;Li X.X.;You X.X. and Sun, J.

Publication Date: 2026

Journal: Heart and Lung 75, pp. 104–110

2. Association between empiric multidrug-resistant coverage and in-hospital mortality in adults with sepsis who received empiric anti-MRSA therapy.

Authors: Abe, Toshikazu;Iriyama, Hiroki;Imaeda, Taro;Oami, Takehiko;Aizimu, Tuerxun;Takahashi, Nozomi;Yamao, Yasuo;Nakagawa, Satoshi;Ogura, Hiroshi;Umemura, Yutaka;Matsushima, Asako;Fushimi, Kiyohide;Shime, Nobuaki and Nakada, Taka-Aki

Publication Date: Nov ,2025

Journal: Respiratory Medicine 248, pp. 108366

3. Decoding Sepsis: A 16-Year Retrospective Analysis of Activation Patterns, Mortality Predictors, and Outcomes from a Hospital-Wide Sepsis Protocol.

Authors: BorgesSa M.;Giglio A.;Aranda M.;Socias A.;del Castillo A.;Mena J.;Franco S.;Ortega M.;Nieto Y.;Estrada V. and de la Rica, R.

Publication Date: 2025

Journal: Journal of Clinical Medicine 14(16) (pagination), pp. Article Number: 5759. Date of Publication: 01 Aug 2025

4. The V-shaped association between the ratio of neutrophil counts to prognostic nutritional index and 30-, 60-, and 90-day mortality in elderly critically ill patients aged 65 and older with sepsis: a retrospective study based on the MIMIC database.

Authors: Cai, Jierui;Jin, Yifeng;Lou, Jiaqi;Xu, Bingqing;Qi, Huan and Li, Jie

Publication Date: 2025

Journal: Frontiers in Nutrition 12, pp. 1602016

5. Impact of trauma level designation on mortality in trauma patients with sepsis: an observational study across US trauma centers.

Authors: Chebl, Ralphe Bou;Diab, Razan;Siblini, Reem;Bachir, Rana and El Sayed, Mazen

Publication Date: 2025

Journal: Frontiers in Medicine 12, pp. 1591624

6. Impact of Metabolically Healthy and Unhealthy Obesity on Outcomes of Sepsis Complicated by Septic Shock in Elderly Patients.

Authors: Chilingarashvili G.;Pasnoor D.S.;Bajjuri S.;Parekh R.;Manjappachar N.;Gummadi J.;Nanjundappa A. and Desai, R.

Publication Date: 2025

Journal: Journal of Intensive Care Medicine , pp. 8850666251372543

7. Early identification of sepsis-induced coagulopathy in critical ill patients: an analysis from MIMIC IV database.

Authors: Dong Y.;Cao N.;Wu J.;Liu X.;Ji X.;Yin X.;Wu S.;Wang B.;Wei S. and Chen, Y.

Publication Date: 2025

Journal: BMC Infectious Diseases 25(1) (pagination), pp. Article Number: 1071. Date of Publication: 01 Dec 2025

8. Timeliness of Broad-Spectrum Antibiotic De-escalation and Mortality in Emergency Department Patients With Sepsis: A Retrospective Hierarchical Logistic Regression Study.

Authors: Farsani, Amin;Thandi, Pardeep and Htway, Zin

Publication Date: Aug ,2025

Journal: Cureus 17(8), pp. e90728

9. Rule-Based Artificial Intelligence and Workflow to Prompt Early Sepsis Management: A Quality Improvement Project.

Authors: Grooms E.;Biesack K.;Abban B. and Kramer, J.

Publication Date: 2025

Journal: Journal for Healthcare Quality : Official Publication of the National Association for Healthcare Quality (pagination), pp. Date of Publication: 15 Se 2025

10. Cannabinoids in preclinical research of sepsis: a scoping review.

Authors: Inamassu, Carolina Henkes;Sordi, Regina and Marchioni, Camila

Publication Date: Sep 16 ,2025

Journal: Inflammation Research 74(1), pp. 125

11. Frailty as an Independent Predictor of Mortality in Patients with Sepsis.

Authors: Interian, Alejandro;Ramasco, Fernando;Figuerola, Angels and Mendez, Rosa

Publication Date: Aug 26 ,2025

Journal: Journal of Personalized Medicine 15(9)

12. Performance of a novel medical artificial intelligence large language model on supporting decision-making for emergency patients with suspected sepsis.

Authors: Jiang, Sen;Liu, Xiandong;Liu, Tong;Gu, Yi;An, Bo;Wang, Chunxue;Zhao, Dongyang;Zhang, Haitao and Tang, Lunxian

Publication Date: Sep 01 ,2025

Journal: World Journal of Emergency Medicine 16(5), pp. 447–455

13. Risk factors of ICU-acquired weakness in sepsis patients.

Authors: Jin C.;Hu F.;Wu L.;Zhang L.;Wu B. and Yang, Y.

Publication Date: 2025

Journal: Pakistan Journal of Medical Sciences 41(9), pp. 2587–2594

14. Macrolide Therapy in Patients with Sepsis or Septic Shock: A Systematic Review and Meta-Analysis.

Authors: Kim K. and Lee, J.

Publication Date: 2025

Journal: Journal of Clinical Medicine 14(17) (pagination), pp. Article Number: 6254. Date of Publication: 01 Se 2025

15. Cognitive Impairment as a Predictor of Long-Term Outcomes in Septic Patients: A Retrospective Observational Study.

Authors: Koami, Hiroyuki;Sakamoto, Yuichiro;Furukawa, Yutaro;Mouri, Kosuke;Matsuoka, Ayaka;Shinada, Kota;Nakayama, Kento;Iwanaga, Sachiko;Narumi, Shogo and Koba, Mayuko

Publication Date: Aug ,2025

Journal: Cureus 17(8), pp. e90495

16. A systematic review of the cost-impact of sepsis care bundles.

Authors: Ladbroke E.;Bouchoucha S.;McDonall J. and Hutchinson, A. F.

Publication Date: 2025

Journal: The Journal of Hospital Infection (pagination), pp. Date of Publication: 15 Se 2025

17. Reducing post-caesarean sepsis: Current best practice in prevention and treatment.

Authors: Lazzaro, Amanda;Karandikar, Gauri;Martins, Maria L.;Saidi, Friday;Aronoff, David M.;Amaral, Eliana;Boucoiran, Isabelle;Megh, Mandakini;Jacobsson, Bo;Ortiz Lizcano, Edgar Ivan;Money, Deborah;Pasupathy, Dharmintra and Buga, Edward

Publication Date: Nov ,2025

Journal: International Journal of Gynaecology & Obstetrics 171(2), pp. 517–527

18. A causal inference framework to compare the effectiveness of life-sustaining ICU therapies- using the example of cancer patients with sepsis.

Authors: Matos J.;Struja T.;Woite N.L.;Restrepo D.;Waschka A.K.;Celi L.A. and Sauer, C. M.

Publication Date: 2025

Journal: International Journal of Cancer (pagination), pp. Date of Publication: 2025

19. Impact of blood culture positivity on clinical outcomes in sepsis: a prospective observational study.

Authors: Meena, Durga Shankar;Talkar, Manish Anant;Kumar, Deepak;Midha, Naresh;Bohra, Gopal Krishana and Tak, Vibhor

Publication Date: 2025

Journal: Infezioni in Medicina 33(3), pp. 294–302

20. Blood culture positive sepsis in England, 2017-2018: epidemiological assessment of the commissioning for quality and innovation (CQUIN) sepsis indicator.

Authors: Mulchandani, Ranya;Packer, Simon;Howkins, Joshua;Robinson, Carla;Lamagni, Theresa;Bhattacharya, Alex;Reynolds, Rosy;Charlett, Andre;Brown, Colin;Hope, Russell;Hopkins, Susan and Oliver, Isabel

Publication Date: Sep 26 ,2025

Journal: BMC Infectious Diseases 25(1), pp. 1137

21. Sex differences in sepsis outcomes across the lifespan: a population-based cohort study in Germany.

Authors: Rose, Norman;Agrama, Islam;Nachtigall, Irit;Pletz, Mathias W.;Rosendahl, Jenny;Chung, Ha-Yeun;Zielinski, Christina E.;Dudziak, Diana;Spoden, Melissa;Droge, Patrik;Hagel, Stefan and Fleischmann-Struzek, Carolin

Publication Date: Sep 26 ,2025

Journal: Critical Care (London, England) 29(1), pp. 408

22. Time series analysis between platelet counts and 60-day mortality in sepsis patients with thrombocytopenia: a retrospective cohort study.

Authors: Si Y.;You S.;Lei Q.;Liu C. and Zhang, J.

Publication Date: 2025

Journal: BMC Infectious Diseases 25(1) (pagination), pp. Article Number: 1084. Date of Publication: 01 Dec 2025

23. Sepsis in burn care: incidence and outcomes.

Authors: Tedesco, Diana Julia;Hutter, Maria Fernanda;Khalaf, Fadi;Ricciuti, Zachary and Jeschke, Marc G.

Publication Date: Sep 01 ,2025

Journal: Military Medical Research 12(1), pp. 55

24. Continuous versus intermittent infusion of beta-lactams in patients with sepsis and septic shock: a systematic review and meta-analysis.

Authors: Tejada, David A.;Garcia, Hazel C.;Tomas-Alvarado, Eduardo;Yangali-Vicente, Judith;Rivera-Lozada, Oriana and Barboza, Joshuan J.

Publication Date: Sep 26 ,2025

Journal: BMC Infectious Diseases 25(1), pp. 1138

25. The Potential of Artificial Intelligence in the Diagnosis and Prognosis of Sepsis: A Narrative Review

Authors: Tocu, George;Lisa, Elena Lacramioara;Tutunaru, Dana;Mihailov, Raul;Serban, Cristina;Lutenco, Valerii;Dimofte, Florentin;Guliciuc, Madalin;Chiscop, Iulia;Stefanescu, Bogdan Ioan;Niculet, Elena;Gurau, Gabriela;Berbece, Sorin Ion;Mihailov, Oana Mariana and Stavar Matei, Loredana

Publication Date: Aug 27 ,2025

Journal: Diagnostics 15(17)

26. Serum albumin demonstrates comparable or superior prognostic value compared to albumin-based ratios in sepsis.

Authors: Turcato, Gianni;Zaboli, Arian;Cipriano, Alessandro;Brigiari, Gloria;Ferretto, Paolo;Lucente, Fabrizio;Filippi, Lucia;Maggi, Michael;Marchetti, Massimo;Ghiadoni, Lorenzo and Wiedermann, Christian J.

Publication Date: Aug ,2025

Journal: Current Medical Research & Opinion 41(8), pp. 1385–1393

27. Effect of Anti-Diabetic Medication Use on Sepsis Risk in Type 2 Diabetes Mellitus: A Multivariate Analysis.

Authors: Ulambayar B.;Ghanem A.S. and Nagy, A. C.

Publication Date: 2025

Journal: Geriatrics (Switzerland) 10(4) (pagination), pp. Article Number: 108. Date of Publication: 01 Aug 2025

28. Dynamic Measures of Fluid Responsiveness to Guide Resuscitation in Patients With Sepsis and Septic Shock: A Systematic Review and Meta-Analysis.

Authors: Wang, Jocelyn;Blake, Leann Marie;Orozco, Nicolas;Fiorini, Kyle;McChesney, Chris;Slessarev, Marat;Prager, Ross;Leligdowicz, Aleksandra;Sharif, Sameer;Lewis, Kimberley;Rochwerg, Bram;Honarmand, Kimia;Ball, Ian M.;Arntfield, Robert;Wong, Michelle;Bokhary, Diyaa;Bafaraj, Ahmad;Van Nynatten, Logan;Fero, Henri;Russell, Evan, et al

Publication Date: Sep 01 ,2025

Journal: Critical Care Explorations 7(9), pp. e1303

29. Association between the changing trends of platelet distribution width and in-hospital mortality in critically ill patients with sepsis: a multicenter study based on machine learning.

Authors: Xie, Yinjing;Lei, Xinxing;Deng, Hao;Zhang, Jing;Qiu, Shaorong;Zhuang, Dehua;Wu, Hao;Wei, Tianjing;Su, Shijie;Zhang, Xiaoning;Wang, Bin;Yu, Lian;Xu, Yuzhong;Gu, Dayong and Yuan, Xiaopeng

Publication Date: Sep 26 ,2025

Journal: BMC Infectious Diseases 25(1), pp. 1132

30. Association between triglyceride-glucose index trajectories and in-hospital mortality in sepsis: a cohort study based on the MIMIC-IV database.

Authors: Yao, Fengwei;Liu, Lei;Chen, Xiaolan and He, Zhijun

Publication Date: Sep 29 ,2025

Journal: Lipids in Health & Disease 24(1), pp. 297

31. Relationship Between Systemic Immune-Inflammation Index and In-Hospital Mortality in Sepsis Combined With Chronic Obstructive Pulmonary Disease Modified by Mechanical Ventilation.

Authors: Zhang R.W. and Ye, M. J.

Publication Date: 2025

Journal: Clinical Respiratory Journal 19(9) (pagination), pp. Article Number: e70122. Date of Publication: 01 Se 2025

32. Enhanced insights into immunity traits of elderly patients in the intensive care unit with infections: evidence from a multicenter, prospective observational study.

Authors: Zou J.;Xiao Y.;Zhang L.;Zuo Z.;Wang X.;Liao X.;Cui N.;Jin J.;Qian Z.;Wu A. and Li, C.

Publication Date: 2025

33. NICE [Tailored sepsis treatments recommended in updated guidance](#)

We have [updated our suspected sepsis guideline](#) to ensure patients aged 16 or over receive faster, more tailored treatments.

The recommendations include more carefully calibrated fluid treatment and enhanced support for people with communication difficulties.

To support implementation, we've produced a [range of support tools](#), including visual summaries specifically focussed on hospital, mental health and ambulance settings.

Sources Used:

The following databases are used in the creation of this bulletin: EMBASE and Medline.

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