

TOP ARTICLES FOR September 2016

AJRCM

1. [Structure and Function of the Kidney in Septic Shock. A Prospective Controlled Experimental Study.](#)

Maiden MJ, Otto S, Brealey JK, Finnis ME, Chapman MJ, Kuchel TR, Nash CH, Edwards J, Bellomo R.

Am J Respir Crit Care Med. 2016 Sep 15;194(6):692-700. doi: 10.1164/rccm.201511-2285OC. PMID:26967568

2. [Fine Particulate Matter and Emergency Room Visits for Respiratory Illness. Effect Modification by Oxidative Potential.](#)

Weichenthal SA, Lavigne E, Evans GJ, Godri Pollitt KJ, Burnett RT.

Am J Respir Crit Care Med. 2016 Sep 1;194(5):577-86. doi: 10.1164/rccm.201512-2434OC. PMID:26963193

3. [Continuous versus Intermittent \$\beta\$ -Lactam Infusion in Severe Sepsis. A Meta-analysis of Individual Patient Data from Randomized Trials.](#)

Roberts JA, Abdul-Aziz MH, Davis JS, Dulhunty JM, Cotta MO, Myburgh J, Bellomo R, Lipman J.

Am J Respir Crit Care Med. 2016 Sep 15;194(6):681-91. doi: 10.1164/rccm.201601-0024OC.

PMID:26974879

Trauma/Acute Care Surgery

4. [Shorter times to packed red blood cell transfusion are associated with decreased risk of death in traumatically injured patients.](#)

Powell EK, Hinckley WR, Gottula A, Hart KW, Lindsell CJ, McMullan JT.

J Trauma Acute Care Surg. 2016 Sep;81(3):458-62. doi: 10.1097/TA.0000000000001078. PMID:27050884

5. [Do lactate levels in the emergency department predict outcome in adult trauma patients? A systematic review.](#)

Baxter J, Cranfield KR, Clark G, Harris T, Bloom B, Gray AJ.

J Trauma Acute Care Surg. 2016 Sep;81(3):555-66. doi: 10.1097/TA.0000000000001156.

PMID:27280943

6. [Defining the cervical spine clearance algorithm: A single-institution prospective study of more than 9,000 patients.](#)

Duane TM, Young AJ, Vanguri P, Wolfe LG, Katzen J, Han J, Mayglothing J, Whelan JF, Aboutanos MB, Ivatury RR, Malhotra AK.

J Trauma Acute Care Surg. 2016 Sep;81(3):541-7. doi: 10.1097/TA.0000000000001151.

PMID:27270856

CHEST

7. [Hypertension Is Associated With Undiagnosed OSA During Rapid Eye Movement Sleep.](#)

Appleton SL, Vakulin A, Martin SA, Lang CJ, Wittert GA, Taylor AW, McEvoy RD, Antic NA, Catcheside PG, Adams RJ.

Chest. 2016 Sep;150(3):495-505. doi: 10.1016/j.chest.2016.03.010. Epub 2016 Mar 19. PMID:27001264

8. [Safety and Tolerability of Alveolar Type II Cell Transplantation in Idiopathic Pulmonary Fibrosis.](#)

Serrano-Mollar A, Gay-Jordi G, Guillamat-Prats R, Closa D, Hernandez-Gonzalez F, Marin P, Burgos F, Martorell J, Sánchez M, Arguis P, Soy D, Bayas JM, Ramirez J, Tetley TD, Molins L, de la Bellacasa JP, Rodríguez-Villar C, Rovira I, Fibrà JJ, Xaubet A; Pneumocyte Study Group. *Chest*. 2016 Sep;150(3):533-43. doi: 10.1016/j.chest.2016.03.021. Epub 2016 Mar 25. PMID:27020420

9. [Use of \[\(18\)F\]Fluoro-2-deoxy-d-glucose Positron Emission Tomographic Imaging in the National Lung Screening Trial.](#)

Nair VS, Sundaram V, Gould MK, Desai M.

Chest. 2016 Sep;150(3):621-30. doi: 10.1016/j.chest.2016.05.006. Epub 2016 May 11.

PMID: 27179906

NEJM

10. [CPAP for Prevention of Cardiovascular Events in Obstructive Sleep Apnea.](#)

McEvoy RD, Antic NA, Heeley E, Luo Y, Ou Q, Zhang X, Mediano O, Chen R, Drager LF, Liu Z, Chen G, Du B, McArdle N, Mukherjee S, Tripathi M, Billot L, Li Q, Lorenzi-Filho G, Barbe F, Redline S, Wang J, Arima H, Neal B, White DP, Grunstein RR, Zhong N, Anderson CS; SAVE Investigators and Coordinators.

N Engl J Med. 2016 Sep 8;375(10):919-31. doi: 10.1056/NEJMoa1606599. Epub 2016 Aug 28.

PMID:27571048

11. [Effectiveness of Fluticasone Furoate-Vilanterol for COPD in Clinical Practice.](#)

Vestbo J, Leather D, Diar Bakerly N, New J, Gibson JM, McCorkindale S, Collier S, Crawford J, Frith L, Harvey C, Svedsater H, Woodcock A; Salford Lung Study Investigators.

N Engl J Med. 2016 Sep 29;375(13):1253-60. doi: 10.1056/NEJMoa1608033. Epub 2016 Sep 4.

PMID:27593504

12. [Andexanet Alfa for Acute Major Bleeding Associated with Factor Xa Inhibitors.](#)

Connolly SJ, Milling TJ Jr, Eikelboom JW, Gibson CM, Curnutte JT, Gold A, Bronson MD, Lu G, Conley PB, Verhamme P, Schmidt J, Middeldorp S, Cohen AT, Beyer-Westendorf J, Albaladejo P, Lopez-Sendon J, Goodman S, Leeds J, Wiens BL, Siegal DM, Zotova E, Meeks B, Nakamya J, Lim WT, Crowther M; ANNEXA-4 Investigators.

N Engl J Med. 2016 Sep 22;375(12):1131-41. doi: 10.1056/NEJMoa1607887. Epub 2016 Aug 30.

PMID:27573206

JAMA, ICM

13. [Esophageal and transpulmonary pressure in the clinical setting: meaning, usefulness and perspectives.](#)

Mauri T, Yoshida T, Bellani G, Goligher EC, Carteaux G, Rittayamai N, Mojoli F, Chiumello D, Piquilloud L, Grasso S, Jubran A, Laghi F, Magder S, Pesenti A, Loring S, Gattinoni L, Talmor D, Blanch L, Amato M, Chen L, Brochard L, Mancebo J; PLeUral pressure working Group (PLUG—Acute Respiratory Failure section of the European Society of Intensive Care Medicine).

Intensive Care Med. 2016 Sep;42(9):1360-73. doi: 10.1007/s00134-016-4400-x. Epub 2016 Jun 22.

Review. PMID: 27334266

14. [Continuous renal replacement therapy versus intermittent hemodialysis in intensive care patients: impact on mortality and renal recovery.](#)

Truche AS, Darmon M, Bailly S, Clec'h C, Dupuis C, Misset B, Azoulay E, Schwebel C, Bouadma L, Kallel H, Adrie C, Dumenil AS, Argaud L, Marcotte G, Jamali S, Zaoui P, Laurent V, Goldgran-Toledano D, Sonnevile R, Souweine B, Timsit JF; OUTCOMEREA Study Group. *Intensive Care Med.* 2016 Sep;42(9):1408-17. doi: 10.1007/s00134-016-4404-6. Epub 2016 Jun 3. Erratum in: [Intensive Care Med.](#) 2016 Sep;42(9):1523. PMID: 27260258

15. [Quantifying unintended exposure to high tidal volumes from breath stacking dyssynchrony in ARDS: the BREATHE criteria.](#)

Beitler JR, Sands SA, Loring SH, Owens RL, Malhotra A, Spragg RG, Matthay MA, Thompson BT, Talmor D. *Intensive Care Med.* 2016 Sep;42(9):1427-36. doi: 10.1007/s00134-016-4423-3. Epub 2016 Jun 24. PMID:27342819

BMJ, LANCET

16. [Single inhaler triple therapy versus inhaled corticosteroid plus long-acting \$\beta\$ 2-agonist therapy for chronic obstructive pulmonary disease \(TRILOGY\): a double-blind, parallel group, randomised controlled trial.](#)

Singh D, Papi A, Corradi M, Pavlišová I, Montagna I, Francisco C, Cohuet G, Vezzoli S, Scuri M, Vestbo J. *Lancet.* 2016 Sep 3;388(10048):963-73. doi: 10.1016/S0140-6736(16)31354-X. Epub 2016 Sep 1. PMID: 27598678

[Single inhaler triple therapy versus inhaled corticosteroid plus long-acting \$\beta\$ 2-agonist therapy for chronic obstructive pulmonary disease \(TRILOGY\): a double-blind, parallel group, randomised controlled trial.](#)

Singh D, Papi A, Corradi M, Pavlišová I, Montagna I, Francisco C, Cohuet G, Vezzoli S, Scuri M, Vestbo J. *Lancet.* 2016 Sep 3;388(10048):963-73. doi: 10.1016/S0140-6736(16)31354-X. Epub 2016 Sep 1. PMID: 27598678

17. [Bivalirudin or unfractionated heparin in patients with acute coronary syndromes managed invasively with and without ST elevation \(MATRIX\): randomised controlled trial.](#)

Leonardi S, Frigoli E, Rothenbühler M, Navarese E, Calabró P, Bellotti P, Briguori C, Ferlini M, Cortese B, Lupi A, Lerna S, Zavallonito-Parenti D, Esposito G, Tresoldi S, Zingarelli A, Rigattieri S, Palmieri C, Liso A, Abate F, Zimarino M, Comeglio M, Gabrielli G, Chieffo A, Brugaletta S, Mauro C, Van Mieghem NM, Heg D, Jüni P, Windecker S, Valgimigli M; MATRIX Investigators. *BMJ.* 2016 Sep 27;354:i4935. doi: 10.1136/bmj.i4935. PMID: 27677503

18. [Transcatheter versus surgical aortic valve replacement in patients with severe aortic stenosis at low and intermediate risk: systematic review and meta-analysis.](#)

Siemieniuk RA, Agoritsas T, Manja V, Devji T, Chang Y, Bala MM, Thabane L, Guyatt GH. *BMJ.* 2016 Sep 28;354:i5130. doi: 10.1136/bmj.i5130.

PMID: 27683246

Circulation

19. [Lung Cancer Screening Eligibility in the Community: Cardiovascular Risk Factors, Coronary Artery Calcification, and Cardiovascular Events.](#)

Lu MT, Onuma OK, Massaro JM, D'Agostino RB Sr, O'Donnell CJ, Hoffmann U.

Circulation. 2016 Sep 20;134(12):897-9. doi: 10.1161/CIRCULATIONAHA.116.023957. No abstract available.

PMID: 27647299

20. [Induction of Therapeutic Hypothermia During Out-of-Hospital Cardiac Arrest Using a Rapid Infusion of Cold Saline: The RINSE Trial \(Rapid Infusion of Cold Normal Saline\).](#)

Bernard SA, Smith K, Finn J, Hein C, Grantham H, Bray JE, Deasy C, Stephenson M, Williams TA, Straney LD, Brink D, Larsen R, Cotton C, Cameron P.

Circulation. 2016 Sep 13;134(11):797-805. doi: 10.1161/CIRCULATIONAHA.116.021989. Epub 2016 Aug 25.

PMID:27562972

21. [Chest Compression Only Cardiopulmonary Resuscitation for Primary Cardiac Arrest.](#)

Ewy GA.

Circulation. 2016 Sep 6;134(10):695-7. doi: 10.1161/CIRCULATIONAHA.116.023017. No abstract available.

PMID: 27601556

Critical Care

22. [Utility of neuron-specific enolase in traumatic brain injury; relations to S100B levels, outcome, and extracranial injury severity.](#)

[Thelin EP](#)¹, [Jeppsson E](#)², [Frostell A](#)², [Svensson M](#)^{2,3}, [Mondello S](#)⁴, [Bellander BM](#)^{2,3}, [Nelson DW](#)⁵
Crit Care. 2016 Sep 8;20:285. doi: 10.1186/s13054-016-1450-y.

PMID: [27604350](#)

23. [Dexmedetomidine sedation reduces atrial fibrillation after cardiac surgery compared to propofol: a randomized controlled trial.](#)

[Liu X](#)¹, [Zhang K](#)¹, [Wang W](#)¹, [Xie G](#)¹, [Fang X](#)².

Crit Care. 2016 Sep 21;20(1):298.

PMID: [27654700](#)

24. [Near-infrared spectroscopy for assessing tissue oxygenation and microvascular reactivity in critically ill patients: a prospective observational study](#)

Abele Donati, Elisa Damiani, Roberta Domizi, Claudia Scorcella, Andrea Carsetti, Stefania Tondi, Valentina Monaldi, Erica Adrario, Rocco Romano, Paolo Pelaia and Mervyn Singer.

*Critical Care*201620:311

Intensive Care

25. [Evaluation of Serum Lactate, Central Venous Saturation, and Venous-Arterial Carbon Dioxide Difference in the Prediction of Mortality in Postcardiac Arrest Syndrome.](#)

Riveiro DF, Oliveira VM, Braunner JS, Vieira SR.

doi: 10.1177/08850666J Intensive Care Med. 2016 Sep;31(8):544-52. 615592865. Epub 2015 Jun 24. PMID: 26112759

26. [Hypothermia in Adult ICUs: Changing Incidence But Persistent Risk Factor for Mortality.](#)

Niven DJ, Stelfox HT, Laupland KB.

J Intensive Care Med. 2016 Sep;31(8):529-36. doi: 10.1177/0885066614555491. Epub 2014 Oct 21. PMID:25336679

27. When to Stop CPR and When to Perform Rhythm Analysis: Potential Confusion Among ACLS Providers

Brandon Giberson, BS, Amy Uber, BS1, David F. Gaieski, MD, Joseph B. Miller, MD, Charles Wira, MD4, Katherine Berg, MD, Tyler Giberson, BS1, Michael N. Cocchi, MD, Benjamin S. Abella, MD, MPhil, and Michael W. Donnino, MD

Journal of Intensive Care Medicine 2016, Vol. 31(8) 537-543 DOI: 10.1177/0885066614561589

<http://jic.sagepub.com/content/31/8/537.full.pdf+html>

Critical Care Medicine

28. [Metabolite Profiles in Sepsis: Developing Prognostic Tools Based on the Type of Infection.](#)

Neugebauer S, Giamarellos-Bourboulis EJ, Pelekanou A, Marioli A, Baziaka F, Tsangaris I, Bauer M, Kiehntopf M.

Crit Care Med. 2016 Sep;44(9):1649-62. doi: 10.1097/CCM.0000000000001740. PMID:27097292

29. [Cerebral Oximetry During Cardiac Arrest: A Multicenter Study of Neurologic Outcomes and Survival.](#)

Parnia S, Yang J, Nguyen R, Ahn A, Zhu J, Inigo-Santiago L, Nasir A, Golder K, Ravishankar S, Bartlett P, Xu J, Pogson D, Cooke S, Walker C, Spearpoint K, Kitson D, Melody T, Chilwan M, Schoenfeld E, Richman P, Mills B, Wichtendahl N, Nolan J, Singer A, Brett S, Perkins GD, Deakin CD.

Crit Care Med. 2016 Sep;44(9):1663-74. doi: 10.1097/CCM.0000000000001723. PMID:27071068

30. [Liberal Versus Conventional Glucose Targets in Critically Ill Diabetic Patients: An Exploratory Safety Cohort Assessment.](#)

Di Muzio F, Presello B, Glassford NJ, Tsuji IY, Eastwood GM, Deane AM, Ekinci EI, Bellomo R, Mårtensson J.

Crit Care Med. 2016 Sep;44(9):1683-91. doi: 10.1097/CCM.0000000000001742. PMID:27046086