

Select Recent Publications From Dr. Sprung's [Anesthesia Outcomes Lab](#) at Mayo Clinic

1. [Gait Speed and Instrumental Activities of Daily Living in Older Adults After Hospitalization: A Longitudinal Population-Based Study](#). Sprung J, Laporta M, Knopman DS, Petersen RC, Mielke MM, Weingarten TN, Vassilaki M, Martin DP, Schulte PJ, Hanson AC, Schroeder DR, Vemuri P, Warner DO. J Gerontol A Biol Sci Med Sci. 2021 Feb 27:glab064. doi: 10.1093/gerona/064. Online ahead of print. PMID: 33650631.
2. [Three Risk Stratification Tools and Postoperative Pneumonia After Noncardiothoracic Surgery](#). Laporta ML, Kruthiventi SC, Mantilla CB, Johnson RL, Sprung J, Portner ER, Schroeder DR, Weingarten TN. Am Surg. 2020 Dec 19:3134820956299. doi: 10.1177/0003134820956299. Online ahead of print. PMID: 33342277.
3. [Ventilation and outcomes following robotic-assisted abdominal surgery: an international, multicentre observational study](#). Assessment of Ventilation during general Anesthesia for Robotic surgery (AVATaR) Study Investigators; PROtective VEntilation (PROVE) Network; Writing Committee Members; Steering Committee Members; AVATaR Investigators. Br J Anaesth. 2021 Feb;126(2):533-543. doi: 10.1016/j.bja.2020.08.058. Epub 2020 Oct 31. PMID: 33131757.
4. [Brain MRI after critical care admission: A longitudinal imaging study](#). Sprung J, Warner DO, Knopman DS, Petersen RC, Mielke MM, Jack CR Jr, Martin DP, Hanson AC, Schroeder DR, Przybelski SA, Schulte PJ, Laporta ML, Weingarten TN, Vemuri P. J Crit Care. 2021 Apr;62:117-123. doi: 10.1016/j.jcrc.2020.11.024. Epub 2020 Dec 5. PMID: 33340966. Free PMC article.
5. [Association of Hospitalization with Long-Term Cognitive Trajectories in Older Adults](#). Sprung J, Knopman DS, Petersen RC, Mielke MM, Weingarten TN, Vassilaki M, Martin DP, Schulte PJ, Hanson AC, Schroeder DR, Laporta ML, White RJ, Vemuri P, Warner DO. J Am Geriatr Soc. 2020 Oct 31. doi: 10.1111/jgs.16909. Online ahead of print. PMID: 33128387.
6. [Association Between Behavioral and Learning Outcomes and Single Exposures to Procedures Requiring General Anesthesia Before Age 3: Secondary Analysis of Data From Olmsted County, MN](#). Warner DO, Hu D, Zaccariello MJ, Schroeder DR, Hanson AC, Wilder RT, Sprung J, Flick RP. Anesth Analg. 2020 Sep 7:10.1213/ANE.0000000000005180. doi: 10.1213/ANE.0000000000005180. Online ahead of print. PMID: 32932391.
7. [Postoperative outcomes in patients with treatment-emergent central sleep apnea: a case series](#). Barman RA, Fields AR, Eells AJ, Kouri I, Mansukhani MP, Gali B, Sprung J, Weingarten TN. J Anesth. 2020 Dec;34(6):841-848. doi: 10.1007/s00540-020-02828-1. Epub 2020 Jul 21. PMID: 32696093.

8. [Individualized PEEP to optimise respiratory mechanics during abdominal surgery: a pilot randomised controlled trial](#). Fernandez-Bustamante A, Sprung J, Parker RA, Bartels K, Weingarten TN, Kosour C, Thompson BT, Vidal Melo MF. *Br J Anaesth*. 2020 Sep;125(3):383-392. doi: 10.1016/j.bja.2020.06.030. Epub 2020 Jul 16. PMID: 32682559. *Clinical Trial*.
9. [Exposure to surgery with general anaesthesia during adult life is not associated with increased brain amyloid deposition in older adults](#). Sprung J, Warner DO, Knopman DS, Petersen RC, Mielke MM, Jack CR Jr, Lowe VJ, Martin DP, Hanson AC, Schroeder DR, Przybelski SA, Schulte PJ, Weingarten TN, Vemuri P. *Br J Anaesth*. 2020 May;124(5):594-602. doi: 10.1016/j.bja.2020.01.015. Epub 2020 Mar 12. PMID: 32171548.
10. [Outcomes After Noncardiac Surgery for Patients with Pulmonary Hypertension: A Historical Cohort Study](#). Deljou A, Sabov M, Kane GC, Frantz RP, DuBrock HM, Martin DP, Schroeder DR, Johnson MQ, Weingarten TN, Sprung J. *J Cardiothorac Vasc Anesth*. 2020 Jun;34(6):1506-1513. doi: 10.1053/j.jvca.2019.10.059. Epub 2019 Nov 9. PMID: 31791851.
11. [Anesthesia With and Without Nitrous Oxide and Long-term Cognitive Trajectories in Older Adults](#). Sprung J, Abcejo ASA, Knopman DS, Petersen RC, Mielke MM, Hanson AC, Schroeder DR, Schulte PJ, Martin DP, Weingarten TN, Pasternak JJ, Warner DO. *Anesth Analg*. 2020 Aug;131(2):594-604. doi: 10.1213/ANE.0000000000004490. PMID: 31651458.
12. [Lung-protective ventilation for the surgical patient: international expert panel-based consensus recommendations](#). Young CC, Harris EM, Vacchiano C, Bodnar S, Bukowy B, Elliott RRD, Migliarese J, Ragains C, Trethewey B, Woodward A, Gama de Abreu M, Girard M, Futier E, Mulier JP, Pelosi P, Sprung J. *Br J Anaesth*. 2019 Dec;123(6):898-913. doi: 10.1016/j.bja.2019.08.017. Epub 2019 Oct 3. PMID: 31587835. *Review*.
13. [Exposure to surgery under general anaesthesia and brain magnetic resonance imaging changes in older adults](#). Sprung J, Kruthiventi SC, Warner DO, Knopman DS, Petersen RC, Mielke MM, Jack CR Jr, Graff-Radford J, Martin DP, Hanson AC, Schroeder DR, Przybelski SA, Schulte PJ, Weingarten TN, Vemuri P. *Br J Anaesth*. 2019 Dec;123(6):808-817. doi: 10.1016/j.bja.2019.08.024. Epub 2019 Oct 3. PMID: 31587833. *Free PMC article*.
14. [Cognitive function after surgery with regional or general anesthesia: A population-based study](#). Sprung J, Schulte PJ, Knopman DS, Mielke MM, Petersen RC, Weingarten TN, Martin DP, Hanson AC, Schroeder DR, Warner DO. *Alzheimers Dement*. 2019 Oct;15(10):1243-1252. doi: 10.1016/j.jalz.2019.06.4949. Epub 2019 Sep 5. PMID: 31495602. *Free PMC article*.
15. [Association Between Behavioral and Learning Outcomes and Single Exposures to Procedures Requiring General Anesthesia Before Age 3: Secondary Analysis of Data From Olmsted County, MN](#). Warner DO, Hu D, Zaccariello MJ, Schroeder DR, Hanson AC, Wilder RT, Sprung J, Flick RP. *Anesth Analg*. 2020 Sep 7:10.1213/ANE.0000000000005180. doi: 10.1213/ANE.0000000000005180. *Online ahead of print*. PMID: 32932391.

16. [Postoperative Nausea and Vomiting and Pain After Robotic-Assisted Mitral Valve Repair](#). Burtoft MA, Gillespie SM, Laporta ML, Wittwer ED, Schroeder DR, Sprung J, Weingarten TN. Burtoft MA, et al. *J Cardiothorac Vasc Anesth*. 2020 Dec;34(12):3225-3230. doi: 10.1053/j.jvca.2020.07.003. Epub 2020 Jul 9. *J Cardiothorac Vasc Anesth*. 2020. PMID: 32732099.
17. [Risk factors and outcomes of postoperative emergency response team activation: a matched case-control study](#). Hardman MI, Kruthiventi SC, Schmutz MR, Cavalcante AN, Jensen JB, Schroeder DR, Sprung J, Weingarten TN. *Crit Care Resusc*. 2020 Mar;22(1):6-14. PMID: 32102638.
18. [Postoperative nausea and vomiting after bariatric surgery and dexmedetomidine anesthetic: a propensity-weighted analysis](#). Kruthiventi SC, Hofer RE, Warner ME, Sprung J, Kellogg TA, Weingarten TN. *Surg Obes Relat Dis*. 2020 Apr;16(4):545-553. doi: 10.1016/j.soard.2020.01.007. Epub 2020 Jan 18. PMID: 32063491.
19. [International multicentre review of perioperative management and outcome for catecholamine-producing tumours](#). Groeben H, Walz MK, Nottebaum BJ, Alesina PF, Greenwald A, Schumann R, Hollmann MW, Schwarte L, Behrends M, Rössel T, Groeben C, Schäfer M, Lowery A, Hirata N, Yamakage M, Miller JA, Cherry TJ, Nelson A, Solorzano CC, Gigliotti B, Wang TS, Wietasch JKG, Friederich P, Sheppard B, Graham PH, Weingarten TN, Sprung J. *Br J Surg*. 2020 Jan;107(2):e170-e178. doi: 10.1002/bjs.11378. PMID: 31903598.
20. [Effect of Intraoperative High Positive End-Expiratory Pressure \(PEEP\) With Recruitment Maneuvers vs Low PEEP on Postoperative Pulmonary Complications in Obese Patients: A Randomized Clinical Trial](#). Writing Committee for the PROBESE Collaborative Group of the PROtective VEntilation Network (PROVENet) for the Clinical Trial Network of the European Society of Anaesthesiology, Bluth T, Serpa Neto A, Schultz MJ, Pelosi P, Gama de Abreu M; PROBESE Collaborative Group, Bluth T, Bobek I, Canet JC, Cinnella G, de Baerdemaeker L, Gama de Abreu M, Gregoretti C, Hedenstierna G, Hemmes SNT, Hiesmayr M, Hollmann MW, Jaber S, Laffey J, Licker MJ, Markstaller K, Matot I, Mills GH, Mulier JP, Pelosi P, Putensen C, Rossaint R, Schmitt J, Schultz MJ, Senturk M, Serpa Neto A, Severgnini P, Sprung J, Vidal Melo MF, Wrigge H. *JAMA*. 2019 Jun 18;321(23):2292-2305. doi: 10.1001/jama.2019.7505. Erratum in: *JAMA*. 2019 Nov 12;322(18):1829-1830. PMID: 31157366; PMCID: PMC6582260.
21. [Patterns of neuropsychological changes after general anaesthesia in young children: secondary analysis of the Mayo Anesthesia Safety in Kids study](#). Zaccariello MJ, Frank RD, Lee M, Kirsch AC, Schroeder DR, Hanson AC, Schulte PJ, Wilder RT, Sprung J, Katusic SK, Flick RP, Warner DO. *Br J Anaesth*. 2019 May;122(5):671-681. doi: 10.1016/j.bja.2019.01.022. PMID: 30982593; PMCID: PMC6549043.
22. [Association Between Critical Care Admissions and Cognitive Trajectories in Older Adults](#). Schulte PJ, Warner DO, Martin DP, Deljou A, Mielke MM, Knopman DS, Petersen RC,

Weingarten TN, Warner MA, Rabinstein AA, Hanson AC, Schroeder DR, Sprung J. Crit Care Med. 2019 Aug;47(8):1116-1124. doi: 10.1097/CCM.0000000000003829. PMID: 31107280; PMCID: PMC6629515.