**Supplemental Content 1.**

**Journals Included in the Review**

***Anesthesiology & Critical Care Medicine Journals***

1. Anaesthesia
2. Anesthesia & Analgesia
3. Anesthesiology
4. British Journal of Anaesthesia
5. Canadian Journal of Anesthesia
6. Critical Care Medicine
7. International Journal of Obstetric Anesthesia
8. Journal of Anesthesia
9. Journal of Critical Care

***Obstetrics & Gynecology Journals***

1. Acta Obstetricia et Gynecologica Scandinavica
2. American Journal of Obstetrics & Gynecology
3. American Journal of Obstetrics & Gynecology - MFM
4. British Journal of Obstetrics and Gynaecology - BJOG
5. Gynecology & Obstetrics
6. International Journal of Gynecology & Obstetrics
7. JAMA OBGYN
8. Obstetrics & Gynecology

***Pain Journals***

1. European Journal of Pain
2. Pain
3. Scandinavian Journal of Pain

***Perinatology and Pediatric Journals***

1. JAMA Pediatrics
2. Maternal & Child Health Journal
3. Pediatrics
4. The American Journal of Maternal/Child Nursing

***General Medical Journals***

1. British Medical Journal
2. Cell Reports
3. Circulation
4. Cochrane Database of Systematic Reviews
5. Frontiers in Cardiovascular Medicine
6. Heart
7. United States Department of Health & Human Services
8. Hypertension
9. Journal of Psychosomatic Research
10. JACC Heart Failure
11. JAMA
12. JAMA Internal Medicine
13. JAMA Network
14. JAMA Network Open
15. Journal of Medical Internet Research
16. Journal of the American Medical Informatics Association
17. Lancet
18. Nature
19. Nature Medicine
20. PLOS Medicine
21. Resuscitation
22. Scientific Reports
23. The Lancet
24. The New England Journal of Medicine

**Online Supplement: Gerard W. Ostheimer Lecture Syllabus**

***What Is New in Obstetric Anesthesia in 2020?***

Grace Lim, M.D., M.S.

**Article Summaries**

1. Gestational Hypertension and Preeclampsia: ACOG Practice Bulletin, Number 222. (2020). *Obstetrics and Gynecology (New York. 1953)*, *135*(6), e237–e260. https://doi.org/10.1097/AOG.0000000000003891.

Summary: A practice bulletin providing guidelines for the diagnosis and management of gestational hypertension and preeclampsia.

1. Aminu, M., Mathai, M., & van den Broek, N. (2019). Application of the ICD-PM classification system to stillbirth in four sub-Saharan African countries. *PloS One*, *14*(5), e0215864–e0215864. https://doi.org/10.1371/journal.pone.0215864.

Summary: Prospective, observational study in 12 hospitals across Africa showing weaknesses in diagnostic protocols and guidelines for generating data on cause of death, especially antepartum stillbirths.

1. Anderson, K. N., Lind, J. N., Simeone, R. M., Bobo, W. V., Mitchell, A. A., Riehle-Colarusso, T., Polen, K. N., & Reefhuis, J. (2020). Maternal Use of Specific Antidepressant Medications During Early Pregnancy and the Risk of Selected Birth Defects. *JAMA Psychiatry (Chicago, Ill.)*, *77*(12), 1246–1255. https://doi.org/10.1001/jamapsychiatry.2020.2453.

Summary: Population-based, multicenter case-control study of maternal antidepressant use and birth defects. Venlafaxine was associated with the highest number of defects; however, this result requires confirmation.

1. Ansari, J., Carvalho, B., Weiniger, C. F., & Riley, E. T. (2020). Confounders Not General Anesthesia Likely Explain Greater Postpartum Depression. *Anesthesia and Analgesia*, *131*(6), e248–e250. https://doi.org/10.1213/ANE.000000000000485.

Summary: Editorial arguing that Guglielminotti et al. miscalculated the risk of postpartum depression following general anesthesia by ignoring confounding factors and the biological implausibility of the correlation.

1. Arnolds, D. & Scavone, B. (2020). Thromboelastographic assessment of fibrinolytic activity in postpartum hemorrhage: a retrospective single-center observational study. *Anesthesia and Analgesia*, 131(5), 1373. doi: 10.1213/ANE.0000000000004796.

Summary: A single-center retrospective analysis of thromboelastography in treatment post-partum hemorrhage. The authors suggested that platelet-mediated clot retraction should be distinguished from fibrinolysis when assaying using viscoelastic techniques.

1. Arnolds, D., Hofer, J., & Scavone, B. (2020). Inadvertent neuraxial block placement at or above the L1-L2 interspace in the super-obese parturient: a retrospective study. *International Journal of Obstetric Anesthesia*, (42), 20-25. https://doi.org/10.1016/j.ijoa.2019.11.005

Summary: There was a high rate of inadvertently high epidural or intrathecal catheter placement in super-obese parturients. Ultrasound did not prevent this.

1. Arnott, C., Patel, S., Hyett, J., Jennings, G., Woodward, M., & Celermajer, D. S. (2020). Women and cardiovascular disease: pregnancy, the forgotten risk factor. *Heart, lung & circulation*, *29*(5), 662–667. https://doi.org/10.1016/j.hlc.2019.09.011.

Summary: Retrospective cohort of women with singleton pregnancies Australia, showing that hypertensive disease of pregnancy especially early onset, conferred increased risk of cardiovascular disease, with amplification by smoking.

1. Arora, K. S., Mauch, J. T., & Gibson, K. S. (2020). Labor and Delivery Visitor Policies During the COVID-19 Pandemic: Balancing Risks and Benefits. *JAMA : the Journal of the American Medical Association*, *323*(24), 2468–2469. https://doi.org/10.1001/jama.2020.7563.

Summary: Editorial arguing that labor and delivery unit visitor policies must balance risks and benefits in the face of uncertain and evolving information. Risks and benefits must be balanced in an evidence-based, nonreactionary, and compassionate manner.

1. Auger, N., Ayoub, A., & Piché, N. (2020). First trimester general anaesthesia and risk of central nervous system defects in offspring. *British Journal of Anaesthesia : BJA*, *124*(3), e92–e94. https://doi.org/10.1016/j.bja.2020.01.002.

Summary: Letter to the editor presenting evidence to suggest that general anaesthesia in the first trimester might increase the risk of microcephaly. First trimester surgery may be an indication for early screening of CNS defects in pregnancy.

1. Baluku, M., Bajunirwe, F., Ngonzi, J., Kiwanuka, J., & Ttendo, S. (2020). A Randomized Controlled Trial of Enhanced Recovery After Surgery Versus Standard of Care Recovery for Emergency Cesarean Deliveries at Mbarara Hospital, Uganda. *Anesthesia and Analgesia*, *130*(3), 769–776. https://doi.org/10.1213/ANE.0000000000004495.

Summary: An enhanced recovery after anesthesia protocol for women undergoing emergency cesarean delivery in a low-income setting is feasible and reduces length of hospital stay without increasing the complication rate.

1. Bamber, J. H., Lucas, D. N., Plaat, F., Allin, B., Knight, M., Hinshaw, K., Kuntumalla, K., Lo, Q., Stanford, S., Stocks, G., Tanqueray, T., & Wikner, M. (2020). The identification of key indicators to drive quality improvement in obstetric anaesthesia: results of the Obstetric Anaesthetists’ Association/National Perinatal Epidemiology Unit collaborative Delphi project. *Anaesthesia*, *75*(5), 617–625. https://doi.org/10.1111/anae.14861.

Summary: Description of quality indicators for obstetric anaesthesia in the UK, including 5 of 11 indicators chosen by a panel.

1. Bauer, M., Bernstein, K., Dinges, E., Delgado, C., El-Sharawi, N., Sultan, P., Mhyre, J. M., & Landau, R. (2020). Obstetric anesthesia during the coronavirus disease 2019 pandemic. *Anesthesia and Analgesia*. https://doi.org/10.1213/ANE.0000000000004856.

Summary: Evidence-based or expert opinions for anesthesiologists caring for pregnant women during the COVID-19 pandemic with a focus on preparedness and best clinical obstetric anesthesia practice.

1. Belfort, M.A., Stafford, I. A., Moaddab, A., Dildy, G. A., Klassen, M., Berra, A., Watters, C., Romero, R., & Clark, S. L. (2020). Amniotic fluid embolism syndrome: analysis of the Unites States International Registry. *American journal of obstetrics & gynecology MFM*, *2*(2), 100083. https://doi.org/10.1016/j.ajogmf.2019.100083.

Summary: Database chart review of 129 presumed cases of amniotic fluid embolism. Placenta previa, reported allergy, and in-vitro fertilization were associated, though there were no definitive risk factors.

1. Blackwell, T. M., Dill, L. J., Hoepner, L. A., & Geer, L. A. (2020). Using text messaging to improve access to prenatal health information in urban african american and afro-caribbean immigrant pregnant women: mixed methods analysis of text4baby usage. *JMIR mHealth and uHealth*, *8*(2), e14737–. https://doi.org/10.2196/14737.

Summary: An exploratory sequential mixed methods study of the effects of a text message-based prenatal care information application. Participants in a low-income minority community in Brooklyn, NY expressed interest in using the application.

1. Boardman, H., Lamata, P., Lazdam, M., Verburg, A., Siepmann, T., Upton, R., Bilderbeck, A., Dore, R., Smedley, C., Kenworthy, Y., Sverrisdottir, Y., Aye, C. Y., Williamson, W., Huckstep, O., Francis, J. M., Neubauer, S., Lewandowski, A. J., & Leeson, P. (2020). Variations in cardiovascular structure, function, and geometry in midlife associated with a history of hypertensive pregnancy. *Hypertension (Dallas, Tex. 1979)*, *75*(6), 1542–1550. https://doi.org/10.1161/HYPERTENSIONAHA.119.14530.

Summary: Multimodality imaging study finding that differences in cardiac structure and geometry and microvascular rarefaction are evident in midlife after a hypertensive pregnancy, independent of blood pressure.

1. Burgess, A. P., Dongarwar, D., Spigel, Z., Salihu, H. M., Moaddab, A., Clark, S. L., & Fox, K. (2020). Pregnancy-related mortality in the United States, 2003–2016: age, race, and place of death. *American Journal of Obstetrics and Gynecology*, *222*(5), 489.e1–489.e8. https://doi.org/10.1016/j.ajog.2020.02.020.

Summary: Retrospective, cross-sectional study of maternal deaths 2003 to 2016. Relative risk of death for home deliveries doubled, while those of inpatient and outpatient centers fell by ~20%.

1. Burstein, R., Henry, N. J., Collison, M. L., Marczak, L. B., Sligar, A., Watson, S., Khan, M., Listl, S., Murray, C. J., & Hay, S. I. (2019). Mapping 123 million neonatal, infant and child deaths between 2000 and 2017. *Nature (London)*, *574*(7778), 353–+. https://doi.org/10.1038/s41586-019-1545-0.

Summary: Identification of high-mortality clusters using a geostatistical survival model to measure subnational variation in mortality rates in low- and middle-income countries; 58% of deaths could have been averted in the absence of geographical inequality.

1. Butwick, A. J. (2020). Postpartum hemorrhage: wherefore art thou, hyperfibrinolysis? *Anesthesia and Analgesia*, *131*(5), 1370–1372. https://doi.org/10.1213/ANE.0000000000004881.

Summary: Summary of Arnolds and Scarvone applauding the authors for focusing on the pathophysiology of postpartum hemorrhage as distinct from other types of hemorrhage.

1. Callaway, E. (2019). Geneticists retract study suggesting first CRISPR babies might die early. *Nature (London)*, *574*(7778), 307–. https://doi.org/10.1038/d41586-019-03032-2.

Summary: News report of a retraction of a paper that had suggested that patients with two disabled copies of the CCR5 gene are more likely to die early. Another paper had described CRISPR-mediated disruption of this gene in twin girls.

1. Callister, L. C. (2020). Surviving and having a healthy baby are low bars for childbirth: women have the right to expect much more. *MCN, the American Journal of Maternal Child Nursing*, *45*(2), 127–127. https://doi.org/10.1097/NMC.0000000000000607.

Summary: An editorial summary of recent studies and the recommendations for improvement in maternity care from the World Health Organization.

1. Canales, C., Lee, C., & Cannesson, M. (2020). Science without conscience is but the ruin of the soul: the ethics of big data and artificial intelligence in perioperative medicine. *Anesthesia and Analgesia*, *130*(5), 1234–1243. https://doi.org/10.1213/ANE.0000000000004728.

Summary: An outline of principles of artificial intelligence for the perioperative physician and an exploration of limitations and ethical challenges in anesthesia.

1. Carvalho, B., & Kinsella, S. M. (2020). Obstetric Anaesthetists’ Association/National Perinatal Epidemiology Unit collaborative project to develop key indicators for quality of care in obstetric anaesthesia: first steps in the right direction. *Anaesthesia*, *75*(5), 573–575. https://doi.org/10.1111/anae.14935.

Summary: Qualitative evaluation of the creation of quality indicators for obstetric anesthesia care in the UK. The authors suggested adding patient-centered input and balancing metrics.

1. Catalano, A., Davis, N. L., Petersen, E. E., Harrison, C., Kieltyka, L., You, M., Conrey, E. J., Ewing, A. C., Callaghan, W. M., & Goodman, D. A. (2020). Pregnant? Validity of the pregnancy checkbox on death certificates in four states, and characteristics associated with pregnancy checkbox errors. *American Journal of Obstetrics and Gynecology*, *222*(3), 269.e1–269.e8. https://doi.org/10.1016/j.ajog.2019.10.005.

Summary: Multi-state validity analysis of a pregnancy checkbox on death certificates. The sensitivity and positive predictive value of the checkbox were 62% and 68%, respectively.

1. Cells edited with CRISPR prove safe in humans. (2020). *Nature (London)*, *581*(7806), 11–11. https://doi.org/10.1038/d41586-020-01262-3.

Summary: Report of a paper in Nature Medicine on the first-in-human phase I clinical trial of CRISPR–Cas9 PD-1-edited T cells in patients with advanced non-small-cell lung cancer, suggesting that the technique is safe and feasible.

1. Chatterjee, D., Arendt, K. W., Moldenhauer, J. S., Olutoye, O. A., Parikh, J. M., Tran, K. M., Zaretsky, M. V., Zhou, J., & Rollins, M. D. (2020). Anesthesia for Maternal–Fetal Interventions: A Consensus Statement from the American Society of Anesthesiologists Committees on Obstetric and Pediatric Anesthesiology and the North American Fetal Therapy Network. *Anesthesia and Analgesia*, *132*(4), 1164–1173. https://doi.org/10.1213/ANE.0000000000005177.

Summary: A consensus statement describing the comprehensive preoperative evaluation, intraoperative anesthetic management, and postoperative care for the various types of maternal-fetal interventions,

1. Cho, K.-J., Kwon, O., Kwon, J., Lee, Y., Park, H., Jeon, K.-H., Kim, K.-H., Park, J., & Oh, B.-H. (2020). Detecting patient deterioration using artificial intelligence in a rapid response system. *Critical Care Medicine*, *48*(4), e285–e289. https://doi.org/10.1097/CCM.0000000000004236.

Summary: A retrospective chart review conducted at a hospital with a deep learning-based early warning system. The system accurately predicted deterioration of patients in a general ward and outperformed conventional methods.

1. Chooi, C., Cox, J. J., Lumb, R. S., Middleton, P., Chemali, M., Emmett, R. S., Simmons, S. W., & Cyna, A. M. (2017). Techniques for preventing hypotension during spinal anaesthesia for caesarean section. *The Cochrane database of systematic reviews*, *8*(8), CD002251. Advance online publication. https://doi.org/10.1002/14651858.CD002251.pub3.

Summary: A Cochrane review of obstetrical anesthesia concluding that no single or combined prophylactic intervention avoids the need to treat some women for hypotension following spinal anesthesia for caesarean section.

1. Clapp, M. A., James, K. E., Bates, S. V., & Kaimal, A. J. (2020). Patient and hospital factors associated with unexpected newborn complications among term neonates in us hospitals. *JAMA Network Open*, *3*(2), e1919498–e1919498. https://doi.org/10.1001/jamanetworkopen.2019.19498

Summary: Cross-sectional analysis of birth certificate and survey data in the US. Neonatal transfer was the primary factor associated with complications. Transfers were more likely when infants were born in hospitals with lower levels of neonatal care.

1. Creanga, A. A., Thoma, M., & MacDorman, M. (2020). Value and disvalue of the pregnancy checkbox on death certificates in the United States–impact on newly released 2018 maternal mortality data. *American Journal of Obstetrics and Gynecology*, *223*(3), 393.e1–393.e4. https://doi.org/10.1016/j.ajog.2020.05.046.

Summary: Criticism of the National Center for Health Statistics use of the checkbox on death certificates to measure maternal deaths. Citation of the high false-positive and false-negative rates, with an appeal for better validity analysis.

1. Dhruva, S. S., & Redberg, R. F. (2020). A successful but underused strategy for reducing low-value care: stop paying for it. *JAMA Internal Medicine*, 180(4), 532–532. https://doi.org/10.1001/jamainternmed.2019.7142

Summary: Editor’s note arguing efforts to reduce unnecessary testing including the Choosing Wisely campaign that has helped reduce screening for vitamin D deficiency. The editor recommends reducing funding for such tests.

1. Drife, J. (2020). Point‐of‐care coagulation testing in obstetrics: more evidence, please? *BJOG : an International Journal of Obstetrics and Gynaecology*, *127*(7), 828–828. https://doi.org/10.1111/1471-0528.16111.

Summary: Mini-review that makes the case for point-of-care coagulation testing to reduce the incidence of postpartum hemorrhage.

1. Eckerdal, P., Kollia, N., Karlsson, L., Skoog-Svanberg, A., Wikström, A.-K., Högberg, U., & Skalkidou, A. (2020). Epidural analgesia during childbirth and postpartum depressive symptoms: a population-based longitudinal cohort study. *Anesthesia and Analgesia*, *130*(3), 615–624. https://doi.org/10.1213/ANE.0000000000004292.

Summary: Swedish population-based longitudinal cohort study showing that epidural anesthesia was not associated with the risk of postpartum depression at 6 weeks postpartum after adjusting for sociodemographic, psychosocial, and obstetric variables.

1. El Shamy, T., Amer, S. A. K., Mohamed, A. A., James, C., & Jayaprakasan, K. (2020). The impact of uterine artery embolization on ovarian reserve: A systematic review and meta‐analysis. Acta Obstetricia et Gynecologica Scandinavica, 99(1), 16–23. https://doi.org/10.1111/aogs.13698.

Summary: Meta-analysis of 353 studies showing that terine artery embolization for uterine fibroids does not appear to affect ovarian reserve as measured by serum concentrations of anti-Mullerian hormone and FSH.

1. Escobedo, M. B., Aziz, K., Kapadia, V. S., Lee, H. C., Niermeyer, S., Schmölzer, G. M., Szyld, E., Weiner, G. M., Wyckoff, M. H., Yamada, N. K., & Zaichkin, J. G. (2019). 2019 American Heart Association focused update on neonatal resuscitation: an update to the American Heart Association guidelines for cardiopulmonary resuscitation and emergency cardiovascular care. *Circulation (New York, N.Y.)*, *140*(24), e922–e930. https://doi.org/10.1161/CIR.0000000000000729.

Summary: In term and late-preterm newborns receiving respiratory support at birth, initial use of 21% oxygen is reasonable; 100% oxygen is associated with excess mortality. In preterm newborns, it may be reasonable to begin with 21%–30% oxygen.

1. Farquhar, C. M., Armstrong, S., Masson, V., Thompson, J. M. D., & Sadler, L. (2020). Clinician identification of birth asphyxia using intrapartum cardiotocography among neonates with and without encephalopathy in New Zealand. *JAMA Network Open*, *3*(2), e1921363–e1921363. https://doi.org/10.1001/jamanetworkopen.2019.21363.

Summary: Case-control study of obstetricians and midwives asked to predict neonatal encephalopathy based on cardiotography. Experienced clinicians detected 3 of 4 infants who were subsequently diagnosed with neonatal encephalopathy.

1. Farrell, M. E., & Evans, M. L. (2020). Leaving half the population behind—the continued fight to cover America’s mothers: a call to action. *American Journal of Obstetrics and Gynecology*, *223*(3), 379.e1–379.e5. https://doi.org/10.1016/j.ajog.2020.05.034.

Summary: Editorial arguing for extension of Medicaid benefits to 365 days postpartum.

1. Ferreira, E. C., Costa, M. L., Pacagnella, R. C., Silveira, C., Andreucci, C. B., Zanardi, D. M., Santos, J. P., Angelini, C. R., Souza, R. T., Parpinelli, M. A., Sousa, M. H., & Cecatti, J. G. (2020). General and reproductive health among women after an episode of severe maternal morbidity: Results from the COMMAG study. *International Journal of Gynecology and Obstetrics*, *150*(1), 83–91. https://doi.org/10.1002/ijgo.13161.

Summary: Retrospective cohort study at a tertiary maternity hospital showing that women experiencing severe maternal morbidity are at higher risk of general and reproductive health problems after pregnancy, including risk of death.

1. Ferschl, M. B., Feiner, J., Vu, L., Smith, D., & Rollins, M. D. (2020). A comparison of spinal anesthesia versus monitored anesthesia care with local anesthesia in minimally invasive fetal surgery. *Anesthesia and Analgesia*, *130*(2), 409–415. https://doi.org/10.1213/ANE.0000000000003947.

Summary: Monitored anesthesia care plus local anesthesia is reliable and safe for minimally invasive fetal surgery. It decreases maternal hemodynamic instability and reduces preincision operating room time.

1. Garland, E. L. (2020). Psychosocial intervention and the reward system in pain and opioid misuse: new opportunities and directions. *Pain (Amsterdam)*, *161*(12), 2659–2666. https://doi.org/10.1097/j.pain.0000000000001988.

Summary: A topical review proposing a mechanistic model for optimizing psychosocial interventions by leveraging positive affective/reward-related mechanisms as a means of addressing chronic pain and opioid misuse.

1. Gómez-Pérez, L., Cumsille, P., & Román, C. (2020). Bidirectional relationship between physical health symptoms and depressive symptoms in the pre- and postpartum period. *Journal of Psychosomatic Research*, *139*, 110280–110280. https://doi.org/10.1016/j.jpsychores.2020.110280.

Summary: A questionnaire-based study finding that concurrently intervening when physical and mental health symptoms appear could promote women's perinatal health.

1. Guglielminotti, J., & Li, G. (2020). Exposure to general anesthesia for cesarean delivery and odds of severe postpartum depression requiring hospitalization. *Anesthesia and Analgesia*, *131*(5), 1421–1429. https://doi.org/10.1213/ANE.0000000000004663.

Summary: Retrospective cohort study of cesarean deliveries showing that general anesthesia was associated with increased risk of postpartum depression associated with hospitalization, suicidal ideation, and self-inflicted injury.

1. Guille, C., Simpson, A. N., Douglas, E., Boyars, L., Cristaldi, K., McElligott, J., Johnson, D., & Brady, K. (2020). Treatment of opioid use disorder in pregnant women via telemedicine: a nonrandomized controlled trial. *JAMA Network Open*, *3*(1), e1920177–e1920177. https://doi.org/10.1001/jamanetworkopen.2019.20177.

Summary: A nonrandomized controlled trial of 98 women receiving perinatal opiate use disorder treatment. Virtually integrated care and in-person care for opiate use disorder produced similar maternal and newborn outcomes.

1. Hao, Q., Hu, Y., Zhang, L., Ross, J., Robishaw, S., Noble, C., Wu, X., & Zhang, X. (2020). A systematic review and meta-analysis of clinical trials of neuraxial, intravenous, and inhalational anesthesia for external cephalic version. *Anesthesia and Analgesia*, *131*(6), 1800–1811. https://doi.org/10.1213/ANE.0000000000004795.

Summary: External cephalic version was significantly more successful with than without neuraxial anesthesia but significantly more maternal hypotension. Use of anesthesia had no effect on the cesarean rate.

1. Hasegawa, J., Katsuragi, S., Tanaka, H., Kubo, T., Sekizawa, A., Ishiwata, I., & Ikeda, T. (2020). How should maternal death due to suicide be classified? Discrepancy between ICD‐10 and ICD‐MM. *BJOG: an International Journal of Obstetrics and Gynaecology*, *127*(6), 665–667. https://doi.org/10.1111/1471-0528.16087.

Summary: Commentary making the case for inclusion of suicide as a direct or indirect cause of maternal death; it is also a call for improved management of mental health issues in pregnant women.

1. Hastie, R., Mol, B., & Tong, S. (2020). Acupuncture in pregnancy; primum non nocere. *BJOG : an International Journal of Obstetrics and Gynaecology*, *127*(1), 87–87. https://doi.org/10.1111/1471-0528.15976.

Summary: Editorial casting doubt on the literature supporting the efficacy of acupuncture for pregnancy-related conditions.

1. Hauspurg, A., Lemon, L., Cabrera, C., Javaid, A., Binstock, A., Quinn, B., Larkin, J., Watson, A. R., Beigi, R. H., & Simhan, H. (2020). Racial differences in postpartum blood pressure trajectories among women after a hypertensive disorder of pregnancy. *JAMA Network Open*, *3*(12), e2030815–e2030815. https://doi.org/10.1001/jamanetworkopen.2020.30815.

Summary: Prospective cohort study of women with hypertensive disorder of pregnancy enrolled in a postpartum remote blood pressure monitoring program. Black womens’ blood pressure declined more slowly than Whites and remained high at 6 weeks.

1. Henderson, J., Bouck, Z., Holleman, R., Chu, C., Klamerus, M. L., Santiago, R., Bhatia, R. S., & Kerr, E. A. (2020). Comparison of payment changes and choosing wisely recommendations for use of low-value laboratory tests in the United States and Canada. *JAMA Internal Medicine*, *180*(4), 524–531. https://doi.org/10.1001/jamainternmed.2019.7143.

Summary: Cross-sectional population-based interrupted time series of adults showing that reimbursement guidelines may be more effective than recommendations in reducing the frequency of unnecessary testing.

1. U.S. Department of Health and Human Services (2020). *Healthy women, healthy pregnancies, healthy futures: action plan to improve maternal health in America*. healthy-women-healthy-pregnancies-healthy-future-action-plan\_0.pdf.

Summary: Policy guide emphasizing the importance of addressing risk factors before and during pregnancy, improving the quality of maternity and postpartum care, and supporting a research agenda to fill gaps in current evidence.

1. Higgins, M. F., Pollard, L., McGuinness, S. K., & Kingdom, J. C. (2019). Fetal heart rate monitoring in nonobstetric surgery: a systematic review of the evidence. *American journal of obstetrics & gynecology MFM*, *1*(4), 100048. https://doi.org/10.1016/j.ajogmf.2019.100048.

Summary: Cochrane review of outcomes in deliveries with discontinued vs continuous IV oxytocin. Discontinuing IV oxytocin stimulation after the active phase of labour has been established may reduce caesarean delivery but the evidence for this was uncertain.

1. Howell, E. A., Egorova, N. N., Janevic, T., Brodman, M., Balbierz, A., Zeitlin, J., & Hebert, P. L. (2020). Race and ethnicity, medical insurance, and within-hospital severe maternal morbidity disparities. *Obstetrics and Gynecology (New York. 1953)*, *135*(2), 285–293. https://doi.org/10.1097/AOG.0000000000003667.

Summary: A population-based, cross-sectional study in New York City suggesting that black and Latina women are at higher risk of severe maternal morbidity than white women; this finding was not associated with differences in types of insurance.

1. Hutchens, B. F., Holland, M. L., Tanner, T., & Kennedy, H. P. (2021). Does perceived quality of care moderate postpartum depression? a secondary analysis of a two-stage survey. *Maternal and Child Health Journal*, *25*(4), 613–625. https://doi.org/10.1007/s10995-020-03103-1.

Summary: A cross-sectional secondary analysis of survey data suggesting that risk factors for postpartum depression symptoms are moderated by perceived quality of care.

1. Ing, C., Ma, X., Sun, M., Lu, Y., Wall, M. M., Olfson, M., & Li, G. (2020). Exposure to surgery and anesthesia in early childhood and subsequent use of attention deficit hyperactivity disorder medications. *Anesthesia and Analgesia*, *131*(3), 723–733. https://doi.org/10.1213/ANE.0000000000004619.

Summary: Medicaid-enrolled children receiving anesthesia for a single common pediatric surgical procedure under age 5 years were 37% more likely to require subsequent persistent use of ADHD medications than unexposed children.

1. Jespersen, M. S., Jaeger, P., Ægidius, K. L., Fabritius, M. L., Duch, P., Rye, I., Afshari, A., & Meyhoff, C. S. (2020). Sphenopalatine ganglion block for the treatment of postdural puncture headache: a randomised, blinded, clinical trial. *British Journal of Anaesthesia : BJA*, *124*(6), 739–747. https://doi.org/10.1016/j.bja.2020.02.025.

Summary: Randomized controlled trial of sphenopalatine ganglion block with local anaesthetic on pain after epidural anesthesia. There was no significant effect; however, pain was reduced, and epidural blood patches were avoided in half the patients in both groups, suggesting a major effect not necessarily attributable to local anaesthetics.

1. Kacmar, R. M., & Mhyre, J. M. (2020). the continued crisis of maternal mortality: is consolidation of care the answer? *Anesthesia and Analgesia*, *130*(1), 49–51. https://doi.org/10.1213/ANE.0000000000004364.

Summary: Editorial commenting on a 3-year French population-based case-control study of maternal mortality. The authors suggest that the French study supports the creation of centers of excellence in anesthetic care for obstetric patients.

1. Kharasch, E. D., Clark, J. D., & Kheterpal, S. (2020). Perioperative gabapentinoids: deflating the bubble. *Anesthesiology (Philadelphia)*, *133*(2), 251–254. https://doi.org/10.1097/ALN.0000000000003394.

Summary: Editorial noting the diminished evidence of benefit from routine perioperative administration of gabapentinoids and the increased evidence of harms associated with their use.

1. Kleiman, A., Chisholm, C., Dixon, A., Sariosek, B. ., Thiele, R. ., Hedrick, T. ., Carvalho, B., & Tiouririne, M. (2020). Evaluation of the impact of enhanced recovery after surgery protocol implementation on maternal outcomes following elective cesarean delivery. *International Journal of Obstetric Anesthesia*, *43*, 39–46. https://doi.org/10.1016/j.ijoa.2019.08.004.

Summary: Implementation of enhanced recovery after surgery protocols for elective cesarean delivery were associated with significant improvements in analgesic and recovery outcomes.

1. Klumpner, T. T., Kountanis, J. A., Meyer, S. R., Ortwine, J., Bauer, M. E., Carver, A., Piehl, A. M., Smith, R., Mentz, G., & Tremper, K. K. (2020). Use of a novel electronic maternal surveillance system and the maternal early warning criteria to detect severe postpartum hemorrhage. *Anesthesia and Analgesia*, *131*(3), 857–865. https://doi.org/10.1213/ANE.0000000000004605.

Summary: Use of an automated alerting system combined with an existing nursing-driven early warning system may improve detection of severely morbid postpartum hemorrhage.

1. Knigin, D., Avidan, A., & Weiniger, C. F. (2020). The effect of spinal hypotension and anesthesia-to-delivery time interval on neonatal outcomes in planned cesarean delivery. *American Journal of Obstetrics and Gynecology*, *223*(5), 747.e1–747.e13. https://doi.org/10.1016/j.ajog.2020.08.005.

Summary: Retrospective analysis of women undergoing spinal anesthesia for planned cesarean delivery at term showing that neonatal acidosis was common but severe perinatal consequences were rare. The effects of sustained spinal hypotension and prolonged anesthesia-to-incision and incision-to-delivery intervals were additive.

1. Lahti-Pulkkinen, M., Girchenko, P., Tuovinen, S., Sammallahti, S., Reynolds, R. M., Lahti, J., Heinonen, K., Lipsanen, J., Hämäläinen, E., Villa, P. M., Kajantie, E., Laivuori, H., & Räikkönen, K. (2020). Maternal hypertensive pregnancy disorders and mental disorders in children. *Hypertension (Dallas, Tex. 1979)*, *75*(6), 1429–1438. https://doi.org/10.1161/HYPERTENSIONAHA.119.14140.

Summary: A prospective study including 4743 mother-child dyads. The authors found that maternal hypertensive pregnancy disorders carry adverse consequences for offspring mental health.

1. Lavin, T., Preen, D., Allanson, E., & Pattinson, R. (2020). Why correctly identifying maternal condition in perinatal death classification systems is crucial: a commentary. *BJOG : an International Journal of Obstetrics and Gynaecology*, *127*(6), 668–670. https://doi.org/10.1111/1471-0528.16109.

Summary: Commentary arguing for accurate reporting of maternal complications as antecedents to perinatal deaths to reduce dissemination of misleading information and cascades of unnecessary interventions.

1. Lawal, O. D., Gold, J., Murthy, A., Ruchi, R., Bavry, E., Hume, A. L., Lewkowitz, A. K., Brothers, T., & Wen, X. (2020). Rate and risk factors associated with prolonged opioid use after surgery: a systematic review and meta-analysis. *JAMA Network Open*, *3*(6), e207367–e207367. https://doi.org/10.1001/jamanetworkopen.2020.7367.

Summary: Systematic review and meta-analysis showing that prolonged opioid use after surgery may pose substantial burdens to public health. Strategies such as proactively screening for at-risk individuals should be prioritized.

1. Lee, M. C., Nahorski, M. S., Hockley, J. R. ., Lu, V. B., Ison, G., Pattison, L. A., Callejo, G., Stouffer, K., Fletcher, E., Brown, C., Drissi, I., Wheeler, D., Ernfors, P., Menon, D., Reimann, F., Smith, E. S. J., & Woods, C. G. (2020). human labor pain is influenced by the voltage-gated potassium channel KV6.4 subunit. *Cell Reports (Cambridge)*, *32*(3), 107941–. https://doi.org/10.1016/j.celrep.2020.107941.

Summary: A study of healthy women who did not request analgesia during their first delivery. The authors suggest that KV6.4 can influence human labor pain by modulating the excitability of uterine nociceptors.

1. Lee, J., Eley, V., Wyssusek, K., Kimble, R., Way, M., Coonan, E., Cohen, J., Rowell, J., & Zundert, A. (2020). Baseline parameters for rotational thromboelastometry in healthy labouring women: a prospective observational study. *BJOG : an International Journal of Obstetrics and Gynaecology*, *127*(7), 820–827. https://doi.org/10.1111/1471-0528.16094.

Summary: Observational study of 121 women to establish baseline parameters for rotational thromboelastometry in laboring women at term. Measured baseline parameters were somewhat different from the manufacturer’s reference ranges.

1. Lotshaw, R. R., Phillippi, J. C., Buxton, M., McNeill-Simaan, E., & Newton, J. M. (2020). A collaborative model of a community birth center and a tertiary care medical center. *Obstetrics and Gynecology (New York. 1953)*, *135*(3), 696–702. https://doi.org/10.1097/AOG.0000000000003723.

Summary: A description of the development, implementation, and evaluation of a collaborative model between a freestanding birth center and a tertiary care medical center.

1. Luethi, N., Bailey, M., Higgins, A., Howe, B., Peake, S., Delaney, A., & Bellomo, R. (2020). Gender differences in mortality and quality of life after septic shock: A post-hoc analysis of the ARISE study. *Journal of Critical Care*, *55*, 177–183. https://doi.org/10.1016/j.jcrc.2019.11.002.

Summary: Post-hoc analysis of a large multi-center trial of early septic shock showing no short- or long-term survival effect for women overall or the pre-menopausal age group.

1. Mahase, E. (2019). Esketamine is approved in Europe for treating resistant major depressive disorder. *BMJ, 367*, l7069–l7069. https://doi.org/10.1136/bmj.l7069.

Summary: Press release announcing the approval by the European Commission of esketamine nasal sprayin combination with a selective serotonin reuptake inhibitor or serotonin and norepinephrine reuptake inhibitor for adults living with treatment resistant major depressive disorder.

1. Maulik, P. K., Devarapalli, S., Kallakuri, S., Bhattacharya, A., Peiris, D., & Patel, A. (2020). The systematic medical appraisal referral and treatment mental health project: quasi-experimental study to evaluate a technology-enabled mental health services delivery model implemented in rural India. *Journal of Medical Internet Research*, *22*(2), e15553–e15553. https://doi.org/10.2196/15553.

Summary: An Indian before-after study of an antistigma campaign aimed to increase use of mental health services. The intervention was associated with a marked increase in service uptake and clinically important reductions in depression and anxiety.

1. McCall, B. (2020). 15 ways Silicon Valley is harnessing big data for health. *Nature Medicine*, *26*(1), 7–10. https://doi.org/10.1038/s41591-019-0708-8.

Summary: Report of how major biotech firms companies are amassing and analyzing giant new data sources, from asthma inhalers to blood-pressure monitors.

1. Mehta, P. K., Kieltyka, L., Bachhuber, M. A., Smiles, D., Wallace, M., Zapata, A., & Gee, R. E. (2020). Racial inequities in preventable pregnancy-related deaths in Louisiana, 2011–2016. *Obstetrics and Gynecology* (New York. 1953), *135*(2), 276–283. https://doi.org/10.1097/AOG.0000000000003591.

Summary: Analysis of 47 confirmed pregnancy-related deaths showing that pregnancy-related deaths occurring among non-Hispanic black women were more likely to be preventable than those of non-Hispanic white women.

1. Melchiorre, K., Thilaganathan, B., Giorgione, V., Ridder, A., Memmo, A., & Khalil, A. (2020). Hypertensive disorders of pregnancy and future cardiovascular health. *Frontiers in Cardiovascular Medicine*, *7*, 59–59. https://doi.org/10.3389/fcvm.2020.00059.

Summary: Review suggesting that prevention of hypertensive disorders should start as early as possible after delivery by making the women aware of their increased cardiovascular risk and encouraging weight control, stop smoking, healthy diet, and daily exercise.

1. Merchant, R. M., Topjian, A. A., Panchal, A. R., Cheng, A., Aziz, K., Berg, K. M., Lavonas, E. J., & Magid, D. J. (2020). Part 1: executive summary: 2020 American Heart Association guidelines for cardiopulmonary resuscitation and emergency cardiovascular care. *Circulation (New York, N.Y.)*, *142*(16\_Suppl\_2 Suppl 2), S337–S357. https://doi.org/10.1161/CIR.0000000000000918.

Summary: An executive summary providing an overview of and orientation to the 2020 AHA Guidelines, organized around the Utstein Formula for Survival.

1. Moon, H., Kim, M., Hwang, D., Jang, J., Lee, J., Shin, J., Ha, I., & Lee, Y. (2020). Safety of acupuncture during pregnancy: a retrospective cohort study in Korea. *BJOG : an International Journal of Obstetrics and Gynaecology*, *127*(1), 79–86. https://doi.org/10.1111/1471-0528.15925.

Summary: Retrospective cohort study showing no significant difference in delivery outcomes (preterm delivery and stillbirth) between confirmed pregnancies in the acupuncture and control groups.

1. Myles, P. S. & Sessler, D. I., (2020). Novel clinical trial designs to improve the efficiency of research. *Anesthesiology (Philadelphia)*, *132*(1), 69–81. https://doi.org/10.1097/ALN.0000000000002989.

Summary: An essay presenting trial designs that improve trial efficiency. The authors discuss the advantages of embedding randomized trials within registries.

1. Nakao, M., Okumura, A., Hasegawa, J., Toyokawa, S., Ichizuka, K., Kanayama, N., Satoh, S., Tamiya, N., Nakai, A., Fujimori, K., Maeda, T., Suzuki, H., Iwashita, M., & Ikeda, T. (2020). Fetal heart rate pattern in term or near-term cerebral palsy: a nationwide cohort study. *American Journal of Obstetrics and Gynecology*, *223*(6), 907.e1–907.e13. https://doi.org/10.1016/j.ajog.2020.05.059.

Summary: Longitudinal analysis of 1069 consecutive intrapartum fetal heart rate strips from infants with severe cerebral palsy at or beyond 34 weeks of gestation. Up to 16% of cerebral palsy may be preventable by focusing on earlier changes seen in the Hon's fetal heart rate progression.

1. Nedeljkovic, S. S., Kett, A., Vallejo, M. C., Horn, J. L., Carvalho, B., Bao, X., Cole, N. M., Renfro, L., Gadsden, J. C., Song, J., Yang, J., & Habib, A. S. (2020). Transversus abdominis plane block with liposomal bupivacaine for pain after cesarean delivery in a multicenter, randomized, double-blind, controlled trial. *Anesthesia and Analgesia*, *131*(6), 1830–1839. https://doi.org/10.1213/ANE.0000000000005075

Summary: Transversus abdominis plane block with liposomal bupivacaine as part of a multimodal analgesia protocol incorporating intrathecal morphine resulted in reduced opioid consumption after cesarean.

1. Nelson, D. B., & Spong, C. Y. (2020). Unintended consequences of obstetric quality metrics-do not throw the baby out with the bathwater. *JAMA Network Open*, *3*(2), e1919749–e1919749. https://doi.org/10.1001/jamanetworkopen.2019.19749.

Summary: Commentary on Clapp et al. The author recommends reviewing process rather than performance measures as was done for thromboembolic therapy of stroke.

1. Ning, K., Zhao, L., Franklin, M., Matloff, W., Batta, I., Arzouni, N., Sun, F., & Toga, A. W. (2020). Parity is associated with cognitive function and brain age in both females and males. *Scientific Reports*, *10*(1), 6100–6100. https://doi.org/10.1038/s41598-020-63014-7.

Summary: Database analysis showing that lifestyle factors accompanying having offspring, rather than the physical process of pregnancy experienced only by females, contribute to the associations between parity and long-term cognitive changes.

1. O’Reilly-Shah, V. N., Gentry, K. R., Walters, A. M., Zivot, J., Anderson, C. T., & Tighe, P. J. (2020). Bias and ethical considerations in machine learning and the automation of perioperative risk assessment. *British Journal of Anaesthesia : BJA*, *125*(6), 843–846. https://doi.org/10.1016/j.bja.2020.07.040.

Summary: Editorial urging caution regarding perioperative risk assessments performed using artificial intelligence and machine learning. The authors support creation of guidelines aimed at reducing sources of bias in these studies.

1. Pancaro, C., Shah, N., Pasma, W., Saager, L., Cassidy, R., van Klei, W., Kooij, F., Vittali, D., Hollmann, M. W., Kheterpal, S., & Lirk, P. (2020). Risk of major complications after perioperative norepinephrine infusion through peripheral intravenous lines in a multicenter study. *Anesthesia and Analgesia*, *131*(4), 1060–1065.

Summary: A retrospective cohort study using perioperative databases to identify surgical patients who received peripheral intravenous infusions of norepinephrine. There was no significant association between peripheral intravenous norepinephrine infusions and adverse events.

1. Patel, M. S., Polsky, D., Kennedy, E. H., Small, D. S., Evans, C. N., Rareshide, C. A. L., & Volpp, K. G. (2020). Smartphones vs wearable devices for remotely monitoring physical activity after hospital discharge: a secondary analysis of a randomized clinical trial. *JAMA Network Open*, *3*(2), e1920677–e1920677. https://doi.org/10.1001/jamanetworkopen.2019.20677.

Summary: Randomized controlled trial to compare tracking of physical activity using smart phones or remote monitors. Patients using smartphones transmitted data for a greater duration and proportion of time than those using wearables.

1. Patorno, E., Hernandez-Diaz, S., Huybrechts, K. F., Desai, R. J., Cohen, J. M., Mogun, H., & Bateman, B. T. (2020). Gabapentin in pregnancy and the risk of adverse neonatal and maternal outcomes: A population-based cohort study nested in the US Medicaid Analytic eXtract dataset. *PLoS Medicine*, *17*(9), e1003322–e1003322. https://doi.org/10.1371/journal.pmed.1003322.

Summary: Gabapentin exposure during early pregnancy was not associated with major malformations overall, although there was some evidence for higher risk of cardiac malformations. Exposure late in pregnancy was associated with higher risk of preterm birth, small for gestational age, and neonatal ICU admission.

1. Peahl, A. F., Kountanis, J. A., & Smith, R. D. (2020). Postoperative urinary catheter removal for Enhanced Recovery After Cesarean protocols. *American Journal of Obstetrics and Gynecology*, *222*(6), 634–634. https://doi.org/10.1016/j.ajog.2020.01.040.

Summary: Bladder catheters should not be removed immediately after delivery in women undergoing long acting neuraxial analgesia. Instead, 6-12 hours is best, as per the Society for Obstetric Anesthesia and Perinatology.

1. Peahl, A. F., Smith, R. D., & Moniz, M. H. (2020). Prenatal care redesign: creating flexible maternity care models through virtual care. *American Journal of Obstetrics and Gynecology*, *223*(3), 389.e1–389.e10. https://doi.org/10.1016/j.ajog.2020.05.029.

Summary: A pilot study of increased use of telehealth to replace some prenatal visits.

1. Peahl, A. F., Gourevitch, R. A., Luo, E. M., Fryer, K. E., Moniz, M. H., Dalton, V. K., Fendrick, A. M., & Shah, N. (2020). Right-sizing prenatal care to meet patientsʼ needs and improve maternity care value. *Obstetrics and Gynecology* (New York. 1953), *135*(5), 1027–1037. https://doi.org/10.1097/AOG.0000000000003820.

Summary: Presentation of a model for prenatal care that matches patient needs with prenatal services, addressing some of the challenges to implementing right-sized prenatal care, including capturing outcomes through research and payment.

1. Poon, L. C., Yang, H., Kapur, A., Melamed, N., Dao, B., Divakar, H., McIntyre, H. D., Kihara, A. B., Ayres‐de‐Campos, D., Ferrazzi, E. M., Di Renzo, G. C., & Hod, M. (2020). Global interim guidance on coronavirus disease 2019 (COVID‐19) during pregnancy and puerperium from FIGO and allied partners: Information for healthcare professionals*. International Journal of Gynecology and Obstetrics, 149*(3), 273–286. https://doi.org/10.1002/ijgo.13156.

Summary: Comprehensive guidance for the management of pregnant women in response to the World Health Organization statements and international concerns regarding the coronavirus disease 2019 outbreak.

1. Qiu, C., Lin, J. C., Shi, J. M., Chow, T., Desai, V. N., Nguyen, V. T., Riewerts, R. J., Feldman, R. K., Segal, S., & Xiang, A. H. (2020). Association Between Epidural Analgesia During Labor and Risk of Autism Spectrum Disorders in Offspring. *JAMA Pediatrics*, *174*(12), 1168–1175. https://doi.org/10.1001/jamapediatrics.2020.3231.

Summary: Retrospective longitudinal birth cohort study suggesting that labor epidural analgesia may be associated with increased risk of autism spectrum disorder in offspring and does not appear to be associated with epidural-related maternal fever.

1. Raghuraman, N., López, J. D., Carter, E. B., Stout, M. J., Macones, G. A., Tuuli, M. G., & Cahill, A. G. (2020). The effect of intrapartum oxygen supplementation on category II fetal monitoring. *American Journal of Obstetrics and Gynecology*, *223*(6), 905.e1–905.e7. https://doi.org/10.1016/j.ajog.2020.06.037.

Summary: Secondary analysis of a randomized trial showing that maternal face-mask oxygen did not resolve high-risk category II features or hasten the resolution of recurrent decelerations.

1. Reale, S. C., Fields, K. G., Lumbreras-Marquez, M. I., King, C. H., Burns, S. L., Huybrechts, K. F., & Bateman, B. T. (2020). Association between number of in-person health care visits and SARS-CoV-2 infection in obstetrical patients. *JAMA : the Journal of the American Medical Association*, *324*(12), 1210–1212. https://doi.org/10.1001/jama.2020.15242.

Summary: A nested case-control study finding that there was no meaningful association between the number of in-person health care visits and the rate of SARS-CoV-2 infections in a sample of obstetrical patients in the Boston area.

1. Reardon, S. (2019). Do C-section babies need mum’s microbes? Trials tackle controversial idea. *Nature* (London), *572*(7770), 423–424. https://doi.org/10.1038/d41586-019-02348-3.

Summary: News report of a series of studies designed to determine the long-term effects of treating babies born via cesarean with maternal vaginal swabs. Critics warned of sparse supporting data and substantial health risks.

1. Ree, A., Nilsen, K. B., Knardahl, S., Sand, T., & Matre, D. (2020). Sleep restriction does not potentiate nocebo‐induced changes in pain and cortical potentials. *European Journal of Pain*, *24*(1), 110–121. https://doi.org/10.1002/ejp.1466.

Summary: Crossover study suggesting that sleep restriction does not facilitate nocebo-induced hyperalgesia. Increased sensitivity of the pain system following nocebo and sleep restriction are mediated by different cortical mechanisms,

1. Reed, R. L., Chang, C., & Perlman, J. M. (2020). Perinatal characteristics and delivery room management of infants born through MSAF. *Resuscitation*, *157*, 99–105. https://doi.org/10.1016/j.resuscitation.2020.10.008.

Summary: Non-vigorous infants delivered through thick versus thin meconium were more likely to be intubated with a high yield of recovery. Severe pulmonary morbidity was uncommon. Most respiratory symptomatology was not related to meconium aspiration syndrome.

1. Richardson, M. G., & Raymond, B. L. (2020). Sugammadex administration in pregnant women and in women of reproductive potential: a narrative review. *Anesthesia and Analgesia*, *130*(6), 1628–1637. https://doi.org/10.1213/ANE.0000000000004305.

Summary: A review highlighting disparities in evidence regarding sugammadex use in female reproductive health, including current research gaps that prevent women from sharing in the benefits of sugammadex enjoyed by most perioperative patients.

1. Rosseland, L. A., Reme, S. E., Simonsen, T. B., Thoresen, M., Nielsen, C. S., & Gran, M. E. (2020). Are labor pain and birth experience associated with persistent pain and postpartum depression? A prospective cohort study. *Scandinavian Journal of Pain*, *20*(3), 591–602. https://doi.org/10.1515/sjpain-2020-0025.

Summary: The relationship between labor pain intensity and postpartum pain and depression are unclear; nevertheless, the findings suggest a need to screen for previous depression and chronic pain in pregnant women and consider preventive measures for those who screen positive.

1. Shao, Y., Forster, S. C., Tsaliki, E., Vervier, K., Strang, A., Simpson, N., Kumar, N., Stares, M. D., Rodger, A., Brocklehurst, P., Field, N., & Lawley, T. D. (2019). Stunted microbiota and opportunistic pathogen colonization in caesarean-section birth. *Nature* (London), *574*(7776), 117–121. https://doi.org/10.1038/s41586-019-1560-1.

Summary: A longitudinal sampling and whole-genome shotgun metagenomic analysis suggesting that mode of delivery affects the composition of the gut microbiota throughout the neonatal period and into infancy.

1. Shen, D., Hasegawa-Moriyama, M., Ishida, K., Fuseya, S., Tanaka, S., & Kawamata, M. (2020). Acute postoperative pain is correlated with the early onset of postpartum depression after cesarean section: a retrospective cohort study. *Journal of Anesthesia*, *34*(4), 607–612. https://doi.org/10.1007/s00540-020-02789-5.

Summary: A retrospective review of 615 women who had undergone cesarean found that the severity of acute postoperative pain was higher in women with than in those without postpartum depression on postoperative day 3.

1. Shukla, V., Eggleston, B., Ambalavanan N, et al. (2020). Predictive modeling for perinatal mortality in resource-limited settings. *JAMA Network Open.* *3*(11):e2026750. doi:10.1001/jamanetworkopen.2020.26750.

Summary: Cohort study showing that models based on prenatal or predelivery data had relatively poor predictive accuracy for intrapartum stillbirths and neonatal mortality. Models incorporating delivery data had better predictive accuracy.

1. Simpson, K. R. (2021). Surgeon General’s call to action to improve maternal health in america. *MCN, the American Journal of Maternal Child Nursing*, *46*(3), 184–184. https://doi.org/10.1097/NMC.0000000000000715.

Summary: Policy statement regarding strategies and actions to improve maternal health, stressing the importance of addressing health throughout life and engaging a variety of stakeholders.

1. Sliwa, K., Baris, L., Sinning, C., Zengin-Sahm, E., Gumbiene, L., Yaseen, I. F., Youssef, G., Johnson, M., Al-Farhan, H., Lelonek, M., Hall, R., & Roos-Hesselink, J. (2020). pregnant women with uncorrected congenital heart disease: heart failure and mortality. *JACC. Heart Failure*, *8*(2), 100–110. https://doi.org/10.1016/j.jchf.2019.09.001.

Summary: 10-year data from a European registry of pregnant women with uncorrected congenital heart disease. Eisenmenger syndrome and delivery in developing countries was associated with mortality and heart failure.

1. Stower, H. (2020). Lack of maternal-fetal SARS-CoV-2 transmission. *Nature Medicine*, *26*(3), 312–312. https://doi.org/10.1038/s41591-020-0810-y.

Summary: Report of a study in the Lancet that found that symptoms in pregnant women with COVID-19 clinical symptoms were similar to those of non-pregnant adults and that there was no indication of vertical transmission to children.

1. Sultan, P., Kamath, N., Carvalho, B., Bansal, P., Elkhateb, R., Dougan, S., Whittington, J., Guo, N., El-Sayed, Y., Mhyre, J., & Sharawi, N. (2020). Evaluation of inpatient postpartum recovery using the Obstetric Quality of Recovery-10 patient-reported outcome measure: a single-center observational study. *American Journal Of Obstetrics & Gynecology MFM*, *2*(4), 100202. https://doi.org/10.1016/j.ajogmf.2020.100202.

Summary: Validity testing of the Obstetric Quality of Recovery-10 patient-reported outcome measure. Vaginal delivery appears superior to cesarean with respect to recovery and the outcome measure appears to be valid.

1. Sultan, P., & Segal, S. (2020). Epidural-related maternal fever: still a hot topic, but what are the burning issues? *Anesthesia and Analgesia*, *130*(2), 318–320. https://doi.org/10.1213/ANE.0000000000004576.

Summary: Editorial of an accompanying in vitro study showing that ropivacaine triggers inflammatory cascades that may cause epidural-related maternal fever, suggesting that this condition may be caused by local anesthetics.

1. Sultan, P., Patel, S. D., Jadin, S., Carvalho, B., & Halpern, S. H. (2020). Transversus abdominis plane block compared with wound infiltration for postoperative analgesia following Cesarean delivery: a systematic review and network meta-analysis. *Canadian Journal of Anesthesia*, *67*(12), 1710–1727. https://doi.org/10.1007/s12630-020-01818-x.

Summary: Systematic review and meta-analysis suggesting that, in the absence of long-acting neuraxial opioid after cesarean section, single-dose transversus abdominis plane blocks are effective opioid-sparing strategies.

1. Sultan, P., Sharawi, N., Blake, L., & Carvalho, B. (2020). Enhanced recovery after caesarean delivery versus standard care studies: a systematic review of interventions and outcomes. *International Journal of Obstetric Anesthesia*, *43*, 72–86. https://doi.org/10.1016/j.ijoa.2020.03.003.

Summary: Systematic review of enhanced recovery after caesarean delivery protocols. There was low- or very low-level evidence supporting outcomes; but most studies showed benefits, and none reported harm. The authors recommended these protocols.

1. Sultan, P., Sadana, N., Sharawi, N., Blake, L., El-Boghdadly, K., Falvo, A., Ciechanowicz, S., Athar, W., Shah, R., Guo, N., Jensen, S., El-Sayed, Y., Cella, D., & Carvalho, B. (2020). Evaluation of domains of patient-reported outcome measures for recovery after childbirth: a scoping and systematic review. *JAMA Network Open*, *3*(5), e205540–e205540. https://doi.org/10.1001/jamanetworkopen.2020.5540.

Summary: Scoping review of patient-reported outcome measures to assess outpatient and inpatient postpartum recovery. Most patient-reported outcome measures identified evaluated a single domain of recovery. Future research should focus on determining the psychometric properties of individual and global recovery.

1. The Lancet. (2020). 2020: a critical year for women, gender equity, and health. *The Lancet (British Edition)*, *395*(10217), 1–1. https://doi.org/10.1016/S0140-6736(19)33170-8.

Summary: Editorial arguing that sustainable development cannot occur without gender equity. The author suggests that it is time this principle was applied with commitment to specific health challenges.

1. The Lancet. (2020). Mental health: time to invest in quality. *The Lancet* (British Edition), *396*(10257), 1045–1045. https://doi.org/10.1016/S0140-6736(20)32110-3.

Summary: An editorial arguing for the ethical imperative for investment in mental health services to redress historic wrongs done to vulnerable communities and to correct current inequities.

1. The WHO ACTION Trials Collaborators. (2020). Antenatal dexamethasone for early preterm birth in low-resource countries. *The New England Journal of Medicine*, *383*(26), 2514–2525. https://doi.org/10.1056/NEJMoa2022398

Summary: Dexamethasone use was associated with lower risks of neonatal death alone and stillbirth or neonatal death without an increase in the incidence of possible maternal bacterial infection.

1. Uppal, V., Retter, S., Casey, M., Sancheti, S., Matheson, K., & McKeen, D. M. (2020). Efficacy of intrathecal fentanyl for cesarean delivery: a systematic review and meta-analysis of randomized controlled trials with trial sequential analysis. *Anesthesia and Analgesia*, *130*(1), 111–125. https://doi.org/10.1213/ANE.0000000000003975.

Summary: Meta-analysis suggesting the benefit of using fentanyl an additive to intrathecal bupivacaine alone and intrathecal bupivacaine combined with morphine for cesarean delivery under spinal anesthesia. The possibility of several sources of bias warrant treating the results with caution.

1. Verret, M., Lauzier, F., Zarychanski, R., Perron, C., Savard, X., Pinard, A.-M., Leblanc, G., Cossi, M.-J., Neveu, X., Turgeon, A. F., McAuley, A., Flexman, A., Denault, A. Y., Jerath, A., Prabhakar, C., McCartney, C., Sawchuk, C., Yarnold, C., Boyle, D., … McKeen, D. (2020). perioperative use of gabapentinoids for the management of postoperative acute pain: a systematic review and meta-analysis. *Anesthesiology* (Philadelphia), *133*(2), 265–279. https://doi.org/10.1097/ALN.0000000000003428

Summary: Systematic review and meta-analysis suggesting that there is no clinically significant analgesic effect for perioperative gabapentinoids and no effect on the prevention of postoperative chronic pain. However, there is a greater risk of adverse events.

1. Vogel, J. P., Wilson, A. N., Scott, N., Widmer, M., Althabe, F., & Oladapo, O. T. (2020). Cost‐effectiveness of uterine tamponade devices for the treatment of postpartum hemorrhage: A systematic review. *International Journal of Gynecology and Obstetrics*, *151*(3), 333–340. https://doi.org/10.1002/ijgo.13393

Summary: Systematic review suggesting that evidence on the cost-effectiveness of uterine tamponade devices is limited and not generalizable.

1. Wang, E., Glazer, K. B., Howell, E. A., & Janevic, T. M. (2020). Social determinants of pregnancy-related mortality and morbidity in the United States: a systematic review. *Obstetrics and Gynecology* (New York. 1953), *135*(4), 896–915. https://doi.org/10.1097/AOG.0000000000003762

Summary: A systematic review of associations between social determinants of health and pregnancy-related mortality and morbidity in the US providing evidence for the role of race and ethnicity, insurance, and education in pregnancy-related mortality and severe maternal morbidity risk.

1. Wong, C. A. (2020). Spinal anesthesia-induced hypotension: is it more than just a pesky nuisance? *American Journal of Obstetrics and Gynecology*, *223*(5), 621–623. https://doi.org/10.1016/j.ajog.2020.08.105.

Summary: Editorial on Knigin et al. highlighting the finding that spinal anesthesia is relatively safe with respect to maternal hypotension and its consequences but stresses the importance of close blood pressure monitoring.

1. Wong, C. A., Moonesinghe, S. R., Boer, C., Hemmings, H. C., & Hunter, J. M. (2020). Women in anaesthesia, a special issue of the British Journal of Anaesthesia. *British Journal of Anaesthesia : BJA*, *124*(3), e40–e43. https://doi.org/10.1016/j.bja.2019.12.038.

Summary: Editorial introducing the special issue, concluding that women anaesthesiologists, educators, and researchers are critical to the profession and to the health of all patients.

1. Yentis, S. M., Lucas, D. N., Brigante, L., Collis, R., Cowley, P., Denning, S., Fawcett, W. J., & Gibson, A. (2020). Safety guideline: neurological monitoring associated with obstetric neuraxial block 2020: A joint guideline by the Association of Anaesthetists and the Obstetric Anaesthetists’ Association. *Anaesthesia*, *75*(7), 913–919. https://doi.org/10.1111/anae.14993.

Summary: Guidelines for monitoring during recovery from obstetric neuraxial block. Escalation is required when recovery is delayed or new symptoms develop.

1. Young-Wolff, K. C., Sarovar, V., Tucker, L.-Y., Goler, N. C., Alexeeff, S. E., Ridout, K. K., & Avalos, L. A. (2020). Association of depression, anxiety, and trauma with cannabis use during pregnancy. *JAMA Network Open*, *3*(2), e1921333–e1921333. https://doi.org/10.1001/jamanetworkopen.2019.21333.

Summary: Cross-sectional database study from a single healthcare network. Depression, anxiety, and trauma diagnoses and symptoms were associated with higher odds of cannabis use among pregnant women in California.

1. Zaigham, M., Helfer, S., Kristensen, K. H., Isberg, P., & Wiberg, N. (2020). Maternal arterial blood gas values during delivery: Effect of mode of delivery, maternal characteristics, obstetric interventions and correlation to fetal umbilical cord blood. *Acta Obstetricia et Gynecologica Scandinavica*, *99*(12), 1674–1681. https://doi.org/10.1111/aogs.13936.

Summary: A prospective-observational cohort study of 250 women undergoing vaginal delivery and 58 women undergoing planned cesarean section. There were significant associations between epidural anesthesia and maternal pH and pO2 and between synthetic oxytocin and pCO2, glucose, and lactate in maternal arterial blood..

1. Zheng, N. S., Feng, Q., Kerchberger, V. E., Zhao, J., Edwards, T. L., Cox, N. J., Stein, C. M., Roden, D. M., Denny, J. C., & Wei, W.-Q. (2020). PheMap: a multi-resource knowledge base for high-throughput phenotyping within electronic health records. *Journal of the American Medical Informatics Association: JAMIA*, *27*(11), 1675–1687. https://doi.org/10.1093/jamia/ocaa104.

Summary: Proof-of-concept study of an algorithm designed to identify phenotypes based on electronic health records. The algorithm performed as well or better performance than current phenotyping approaches.

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