

2021 Publications
Department of Obstetrics and Gynecology
Division of Maternal Fetal Medicine

1. Yule CS, Holcomb DS, Kraus AC, Brown CEL, McIntire DD, Nelson DB. Cholestasis: a prospective study of perinatal outcomes and time to symptom improvement. *Am J Perinatol.* 2021 Apr;38(5):414-420. Epub: 2020 Sep 24. PMID: 32971564
2. Rodriguez AN, Patel S, Macias D, Morgan J, Kraus A, Spong CY. Timing of emergency postpartum hospital visits in the fourth trimester. *Am J Perinatol.* 2021 Mar;38(4):319-325. Epub: 2020 Sep 29. PMID: 32992354
3. Nelson DB, McIntire DD, Leveno KJ. A chronicle of the 17-alpha hydroxyprogesterone caproate story to prevent recurrent preterm birth. *Am J Obstet Gynecol.* 2021 Feb;224(2):175-186. Epub: 2020 Oct 6. PMID: 33035472
4. Happe SK, Yule CS, Spong CY, Wells CE, Dashe JS, Moschos E, Rac MWF, McIntire DD, Twickler DM. Predicting placenta accreta spectrum: validation of the placenta accreta index. *J Ultrasound Med.* 2021 Aug;40(8):1523-1532. Epub: 2020 Oct 14. PMID: 33058255
5. Dillon SJ, Kleinmann W, Seasely A, Ames R, Dyess-Nugent P, McIntire DD, Suen E, Nelson DB. How personality affects teamwork: a study in multidisciplinary obstetrical simulation. *Am J Obstet Gynecol MFM.* 2021 Mar;3(2):100303. Epub: 2020 Dec 28. PMID: 33383231
6. Zierden H, Ortiz JI, DeLong K, Yu J, Li G, Dimitrion P, Bensouda S, Laney V, Bailey A, Anders NM, Scardina M, Mahendroo M, Mesiano S, Burd I, Wagner G, Hanes J, Ensign LM. Enhanced drug delivery to the reproductive tract using nanomedicine reveals new therapeutic options for prevention of preterm birth. *Sci Transl Med.* 2021 Jan 13;13(576):eabc6245. Epub: N/A. PMID: 33441428
7. Nelson DB, Byrne JJ, Cunningham FG. Acute fatty liver of pregnancy. *Obstet Gynecol.* 2021 Mar 1;137(3):535-546. Epub: N/A. PMID: 33543900
8. Adhikari EH, Spong CY. COVID-19 vaccination in pregnant and lactating women. *JAMA.* 2021 Mar 16;325(11):1039-1040. Epub: N/A. PMID: 33555297
9. Twickler DM, Yule CS, Spong CY. Predicting placenta accreta spectrum: validation of the placenta accreta index. *J Ultrasound Med.* 2021 Dec;40(12):2789. Epub: 2021 Feb 21. PMID: 33615537
10. Changers CD, Krishnan JA, Alba L, Albano JD, Bryant AS, Carver M, Cohen LS, Gorodetsky E, Hernandez-Diaz S, Honein MA, Jones BL, Murray RK, Namazy JA, Sahin L, Spong CY, Vasisht KP, Watt K, Wurst KE, Yao L, Schatz M. The safety of asthma medications during pregnancy and lactation: clinical management and research priorities. *J Allergy Clin Immunol.* 2021 Jun;147(6):2009-2020. Epub: 2021 Mar 10. PMID: 33713765

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11. Yule CS, Lewis MA, Do QN, Xi Y, Happe SK, Spong CY, Twickler DM. Transvaginal color mapping ultrasound in the first trimester predicts placenta accreta spectrum: a retrospective cohort study. *J Ultrasound Med*. 2021 Dec;40(12):2735-2743. Epublished: 2021 Mar 16. PMID: 33724510
12. Khan AA, Furey EA, Bailey AA, Xi Y, Schindel DT, Santiago-Muñoz PC, Twickler DM. Fetal liver and lung volume index of neonatal survival with congenital diaphragmatic hernia. *Pediatr Radiol*. 2021 Aug;51(9):1637-1644. Epublished: 2021 Mar 29. PMID: 33779798
13. Dillon SJ, Nelson DB, Spong CY, McIntire DD. Forceps and episiotomy: do they go hand in hand or should they go their separate ways? *Am J Obstet Gynecol MFM*. 2021 Jul;3(4):100370. Epublished: 2021 Apr 5. PMID: 33831590
14. Duryea EL, Adhikari EH, Ambia A, Spong C, McIntire D, Nelson DB. Comparison between in-person and audio-only virtual prenatal visits and perinatal outcomes. *JAMA Netw Open*. 2021 Apr 1;4(4): e215854. Epublished: N/A. PMID: 33852002
15. Leon RL, Mir IN, Herrera CL, Sharma K, Spong CY, Twickler DM, Chalak LF. Neuroplacentology in congenital heart disease: placental connection to neurodevelopmental outcomes. *Pediatr Res*. 2021 Apr 16;doi: 10.1038/s41390-021-01521-7. Epublished: On line ahead of print. PMID: 33864014
16. Conway CK, Varghese A, Mahendroo M, Miller KS. The role of biaxial loading on smooth muscle contractility in the nulliparous murine cervix. *Ann Biomed Eng*. 2021 Aug;49(8):1874-1887. Epublished: 2021 Apr 20. PMID: 33880630
17. Zofkie AC, Fomina YY, Roberts SW, McIntire DD, Nelson DB, Adhikari EH. Effectiveness of Chlamydia trachomatis expedited partner therapy in pregnancy. *Am J Obstet Gynecol*. 2021 Sep;225(3):325.e1-325.e7. Epublished: 2021 Apr 22. PMID: 33894150
18. Nelson DB, Spong CY. Editorial: Initiatives to reduce cesarean delivery rates for low-risk first births. *JAMA*. 2021 Apr 27;325(16):1616-1617. Epublished: N/A. PMID: 33904887
19. Heyward J, Lolic M, Spong C, Atkins D, Pennello G, Varadhan R. Assessing and communicating heterogeneity of treatment effects for patient subpopulations: keynote and panel discussion on communicating heterogeneous treatment effects across populations. *Pharm Stat*. 2021 Sep;20(5):965-978. Epublished: 2021 May 4. PMID: 33942971
20. Roa C, Du Le VN, Mahendroo M, Saytashev I, Ramella-Roman JC. Auto-detection of cervical collagen and elastin in Mueller matrix polarimetry microscopic images using K-NN and Semantic Segmentation classification. *Biomed Opt Express*. 2021 Mar 23;12(4):2236-2249. Epublished: 2021 Apr 1 eCollection. PMID: 33996226
21. Dillon SJ, Kleinmann W, Fomina Y, Werner B, Schultz S, Klucsarits S, Moreno W, Butsko A, McIntire DD, Nelson DB. Does simulation improve clinical performance in management of postpartum hemorrhage? *Am J Obstet Gynecol*. 2021 Oct;225(4):435.e1-435.e8. Epublished: 2021 May 28. PMID: 34052191
22. Martin RB, Duryea EL, Ambia A, Ragsdale A, McIntire D, Wells CE, Spong CY, Dashe JS, Nelson DB. Congenital malformation risk according to hemoglobin A1c values in a contemporary cohort with pregestational diabetes. *Am J Perinatol*. 2021 Oct;38(12):1217-1222. Epublished: 2021 Jun 4. PMID: 34087946

23. Suarez JD, Alvarez KS, Anderson S, King H, Kirkpatrick E, Harms M, **Martin R, Adhikari EH**. Decreasing Chlamydial reinfections in a female urban population. *Sex Transm Dis*. 2021 Dec 1;48(12):919-924. Epublised: N/A. PMID: 34117187
24. **Zofkie AC, Adhikari EH**. Reply: Regarding "Effectiveness of Chlamydia trachomatis expedited partner therapy in pregnancy". *Am J Obstet Gynecol*. 2021 Oct;225(4):472-473. Epublised: 2021 Jun 26. PMID: 34186066
25. Holcomb DS, Pengetnze Y, Steele A, Karam A, Spong C, Nelson DB. Geographic barriers to prenatal care access and their consequences. *Am J Obstet Gynecol MFM*. 2021 Sep;3(5):100442. Epublised: 2021 Jul 8. PMID: 34245930
26. Hawkins JS, Wells CE, Casey BM, McIntire DD, Leveno KJ. Nifedipine for acute tocolysis of preterm labor: a placebo-controlled randomized trial. *Obstet Gynecol*. 2021 Jul 1;138(1):73-78. Epublised: N/A. PMID: 34259466
27. Nallasamy S, Palacios HH, Setlem R, Caraballo MC, Li K, Cao E, Shankaran M, Hellerstein M, Mahendroo M. Transcriptome and proteome dynamics of cervical remodeling in the mouse during pregnancy. *Biol Reprod*. 2021 Nov 15;105(5):1257-1271. Epublised: N/A. PMID: 34309663
28. Lee HR, Saytashev I, Du Le VN, Mahendroo M, Ramella-Roman J, Novikova T. Mueller matrix imaging for collagen scoring in mice model of pregnancy. *Sci Rep*. 2021 Aug 2;11(1):15621. Epublised: N/A. PMID: 34341418
29. **Rodriguez AN**, Holcomb D, Fleming E, Faucher MA, Dominguez J, Corona R, McIntire D, Nelson DB. Improving access to perinatal mental health services: the value of on-site resources. *Am J Obstet Gynecol MFM*. 2021 Nov;3(6):100456. Epublised: 2021 Aug 10. PMID: 34384907
30. Chu H, Sacharidou A, Nguyen A, Li C, Chambliss KL, Salmon JE, Shen Y-M, Lo J, Leone GW, Herz J, Hui DY, Marciano DK, Abrahams VM, Natale BV, Montalbano AP, Xiao S, Xu L, Natale DR, Shaul PW, Mineo C. Protein phosphatase 2A activation via ApoER2 in trophoblasts drives preeclampsia in mouse model of the antiphospholipid syndrome. *Circ Res*. 2021 Sep 17;129(7):735-750. Epublised: 2021 Aug 18. PMID: 34404233
31. Jayyosi C, Lee N, Madhukaran SP, Nallasamy S, Mahendroo M, Myers K. The swelling behavior of the mouse cervix: changing kinetics with osmolarity and the role of hyaluronan in pregnancy. *Acta Biomater*. 2021 Nov;35:414-424. Epublised: 2021 Aug 17. PMID: 34411755
32. **Herrera CL**, Bowman ME, McIntire DD, Nelson DB, Smith R. Revisiting the placental clock: early corticotrophin-releasing hormone rise in recurrent preterm birth. *PLoS One*. 2021 Sep 16;16(9):e0257422. Epublised: N/A. PMID: 34529698
33. **Adhikari EH**, SoRelle JA, McIntire DD, Spong CY. Increasing severity of COVID-19 in pregnancy with Delta (B.1.617.2) variant surge. *Am J Obstet Gynecol*. 2021 Sep 14;S0002-9378(21)01005-X. Epublised: On line ahead of print. PMID: 34529957
34. **Macias DA, Adhikari EH**, Eddins M, Nelson DB, McIntire DD, Duryea EL. A comparison of acute pain management strategies after cesarean delivery. *Am J Obstet Gynecol*. 2021 Sep 14;S0002-9378(21)00999-6. Epublised: On line ahead of print. PMID: 34534504
35. Shahedi M, Spong CY, Dormer JD, Do QN, Xi Y, Lewis MA, **Herrera CL**, Madhuranthakam AJ, Twickler DM, Fei B. Deep learning-based segmentation of the placenta and uterus on MR images. *J Med Imaging (Bellingham)*. 2021 Sep;8(5):054001. Epublised: 2021 Sep 25. PMID: 34589556

36. Fleming ET, Yule CS, Lafferty AK, Happe SK, McIntire DD, Spong CY. Changing patterns of peripartum hysterectomy over time. *Obstet Gynecol.* 2021 Nov 1;138(5):799-801. Epublised: N/A. PMID: 34619739
37. Nelson DB, Spong CY. Editorial: Look before leaping: the value of understanding a quality measure before adoption to public reporting. *Jt Comm J Qual Patient Saf.* 2021 Nov;47(11):681-683. Epublised: 2021 Sep 16. PMID: 34627714
38. Dillon S. Simulation in Obstetrics and Gynecology: A Review of the Past, Present, and Future. *Obstet Gynecol Clin North Am.* 2021 Dec;48(4):689-703. Epublised: N/A. PMID: 34756290
39. Holcomb DS, Rayburn WF. Women's Health and the Era After COVID-19. *Obstet Gynecol Clin North Am.* 2021 Dec;48(4):813-821. Epublised: 2021 Jul 2. PMID: 34756299
40. Holcomb DS, Cunningham FG. Editorial: Seeing Past the Horizon. *Obstet Gynecol Clin North Am.* 2021 Dec;48(4):xiii-xiv. Epublised: N/A. PMID: 34756301
41. Herrera CL, Byrne JJ, Nelson DB, Schell RC, Dashe JS. Postpartum depression risk following prenatal diagnosis of major fetal structural anomalies. *Am J Perinatol.* 2021 Nov;10-105/s-0041-1739265. Epublised: 2021 Nov 10. PMID: 34758499
42. Duryea EL, Martin R, McIntire D, Spong CY, Nelson DB. Perinatal outcomes among women identified by a community health needs assessment. *Am J Perinatol.* 2021 Nov 16;10-1055/s-1740014. Epublised: On line ahead of print. PMID: 34784613
43. Kleinmann W, Spong CY, Nelson DB. Association of simulation training with rates of medical malpractice claims among obstetrician-gynecologists. *Obstet Gynecol.* 2021 Dec 1;138(6):943. Epublised: N/A. PMID: 34794156
44. Adhikari EH, Roberts S. Sexually transmitted infections and preterm birth attempting to pin down targets for intervention from population-level observational data. *JAMA Netw Open.* 2021 Nov;4(11):e2134459. Epublised: N/A. PMID: 34842929
45. Colon-Caraballo M, Lee N, Nallasamy S, Myers K, Hudson D, Iozzo RV, Mahendroo M. Novel regulatory roles of small leucine-rich proteoglycans in remodeling of the uterine cervix in pregnancy. *Matrix Biol.* 2021 Dec 1;S0945-053X(21)00108-6. Epublised: On line ahead of print. PMID: 34863915
46. Ragsdale AS, Thiele LR, Byrne JJ, Zofkie AC, McIntire DD, Spong CY. Natural history of postpartum hematocrit recovery in an urban, safety-net population. *Am J Obstet Gynecol MFM.* 2021 Dec 4;4(2):100541. Epublised: On line ahead of print. PMID: 34875414
47. Adhikari EH, Spong CY. Letter to Editor: Pregnancy is not a disability: including pregnant healthcare workers in COVID-19 vaccine mandates. *Am J Obstet Gynecol.* 2021 Dec 10;s0002-9378(21)02645-4. Epublised: On line ahead of print. PMID: 34902322
48. Byrne JJ, Smith EM, Saucedo AM, Doody K, Holcomb D, Spong CY. Accessibility to postpartum tubal ligation after a vaginal delivery: When the Medicaid Policy is not a limiting factor. *Contraception.* 2021 Dec 28;S0010-7824(21)00468-6. Epublised: On line ahead of print. PMID: 34971610

2021 Books and Book Chapters

Department of Obstetrics and Gynecology

1. Rogers VL, Roberts SW. Obstetrics and Obstetric Disorders. In: Papadakis MA, McPhee SJ, Rabow MW, editor(s). *Current Medical Diagnosis & Treatment 2021, 60th Edition*. New York: McGraw-Hill; 2021. Ch. 19.
2. Queenan JT, Spong CY, Lockwood CJ, editor(s). *Protocols for High-Risk Pregnancies: An Evidence-Based Pregnancies, 7th ed*. Hoboken, NJ: Wiley-Blackwell; 2021. 672 pages.
3. Santiago-Muñoz P. Fetal blood sampling and transfusion. In: Queenan JT, Spong CY, Lockwood CJ, editor(s). *Protocols for High-Risk Pregnancies: An Evidence-Based Pregnancies, 7th ed*. Hoboken, NJ: Wiley-Blackwell; 2021. Ch. 9, p. 69-76.
4. Duryea E. Maternal anemia. In: Queenan JT, Spong CY, Lockwood CJ, editor(s). *Protocols for High-Risk Pregnancies: An Evidence-Based Pregnancies, 7th ed*. Hoboken, NJ: Wiley-Blackwell; 2021. Ch. 11, p. 89-96.
5. Patel S. Renal disease. In: Queenan JT, Spong CY, Lockwood CJ, editor(s). *Protocols for High-Risk Pregnancies: An Evidence-Based Pregnancies, 7th ed*. Hoboken, NJ: Wiley-Blackwell; 2021. Ch. 20, p. 201-208.
6. Adhikari EH. Syphilis. In: Queenan JT, Spong CY, Lockwood CJ, editor(s). *Protocols for High-Risk Pregnancies: An Evidence-Based Pregnancies, 7th ed*. Hoboken, NJ: Wiley-Blackwell; 2021. Ch. 29, p. 293-300.
7. Zofkie AC, Rogers V. Influenza. In: Queenan JT, Spong CY, Lockwood CJ, editor(s). *Protocols for High-Risk Pregnancies: An Evidence-Based Pregnancies, 7th ed*. Hoboken, NJ: Wiley-Blackwell; 2021. Ch. 31, p. 317-322.
8. Adhikari EH. Human Immunodeficiency Virus Infection. In: Queenan JT, Spong CY, Lockwood CJ, editor(s). *Protocols for High-Risk Pregnancies: An Evidence-Based Pregnancies, 7th ed*. Hoboken, NJ: Wiley-Blackwell; 2021. Ch. 33, p. 333-342.
9. Dashe JS, Ambia AM. Fetal growth restriction. In: Queenan JT, Spong CY, Lockwood CJ, editor(s). *Protocols for High-Risk Pregnancies: An Evidence-Based Pregnancies, 7th ed*. Hoboken, NJ: Wiley-Blackwell; 2021. Ch. 41, p. 421-430.
10. Spong CY. Indicated late-preterm birth and early-term deliveries. In: Queenan JT, Spong CY, Lockwood CJ, editor(s). *Protocols for High-Risk Pregnancies: An Evidence-Based Pregnancies, 7th ed*. Hoboken, NJ: Wiley-Blackwell; 2021. Ch. 46, p. 475-480.
11. Nelson DB. Postpartum hemorrhage. In: Queenan JT, Spong CY, Lockwood CJ, editor(s). *Protocols for High-Risk Pregnancies: An Evidence-Based Pregnancies, 7th ed*. Hoboken, NJ: Wiley-Blackwell; 2021. Ch. 58, p. 601-612.

Note: Current and recent fellows highlighted in yellow .